DOCUMENT RESUME

ED 428 916 RC 021 886

AUTHOR	Haas, Daniel
TITLE	The Federal Archeology Program: Secretary of the Interior's Report to Congress, 1996-1997.
INSTITUTION	National Park Service (Dept. of Interior), Washington, DC.
PUB DATE	1999-04-00
NOTE	69p.; Contains many photographs, which may not reproduce adequately.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Alaska Natives; American Indian Culture; American Indian History; American Indians; *Archaeology; *Cultural Maintenance; *Federal Indian Relationship; *Federal Programs; Field Trips; *Heritage Education; National Parks; Outdoor Education; Public Agencies; School Activities
IDENTIFIERS	Cultural Interpretation; *Historical Interpretation; *Native Americans; Public Awareness

ABSTRACT

To fulfill legislative reporting requirements, this report describes accomplishments of federal agencies with archeological programs, as well as the impact of federal projects on the nation's archeological heritage. In 1991, the Secretary of the Interior outlined actions that agencies should take in (1) preserving and researching sites, (2) preventing looting and vandalism, (3) educating the public, and (4) conserving collections and records. This report examines progress in each of these areas and highlights cooperative efforts with American Indians, Alaska Natives, and Native Hawaiians. These efforts have included involvement of Native groups in archeological research; training and technical assistance to Native groups who wish to do their own archeology; contributions by elders to understanding the cultural context of sites; workshops for Native American educators using archeology to build K-12 curricula; and mentoring of Native youth in preservation. Sections on each of the four areas of concern include a short overview of the situation, followed by program profiles and highlights. The section on reaching out to the public describes an Alaska Native initiative to interpret cultural sites to the public, development of a kit and lesson plans on Chinook culture for use in Washington schools, a virtual school "field trip" to American Indian sites in Virginia, and other school and college activities. Contains many photographs and a list of federal agencies that conduct, sponsor, or license archeology. (SV)

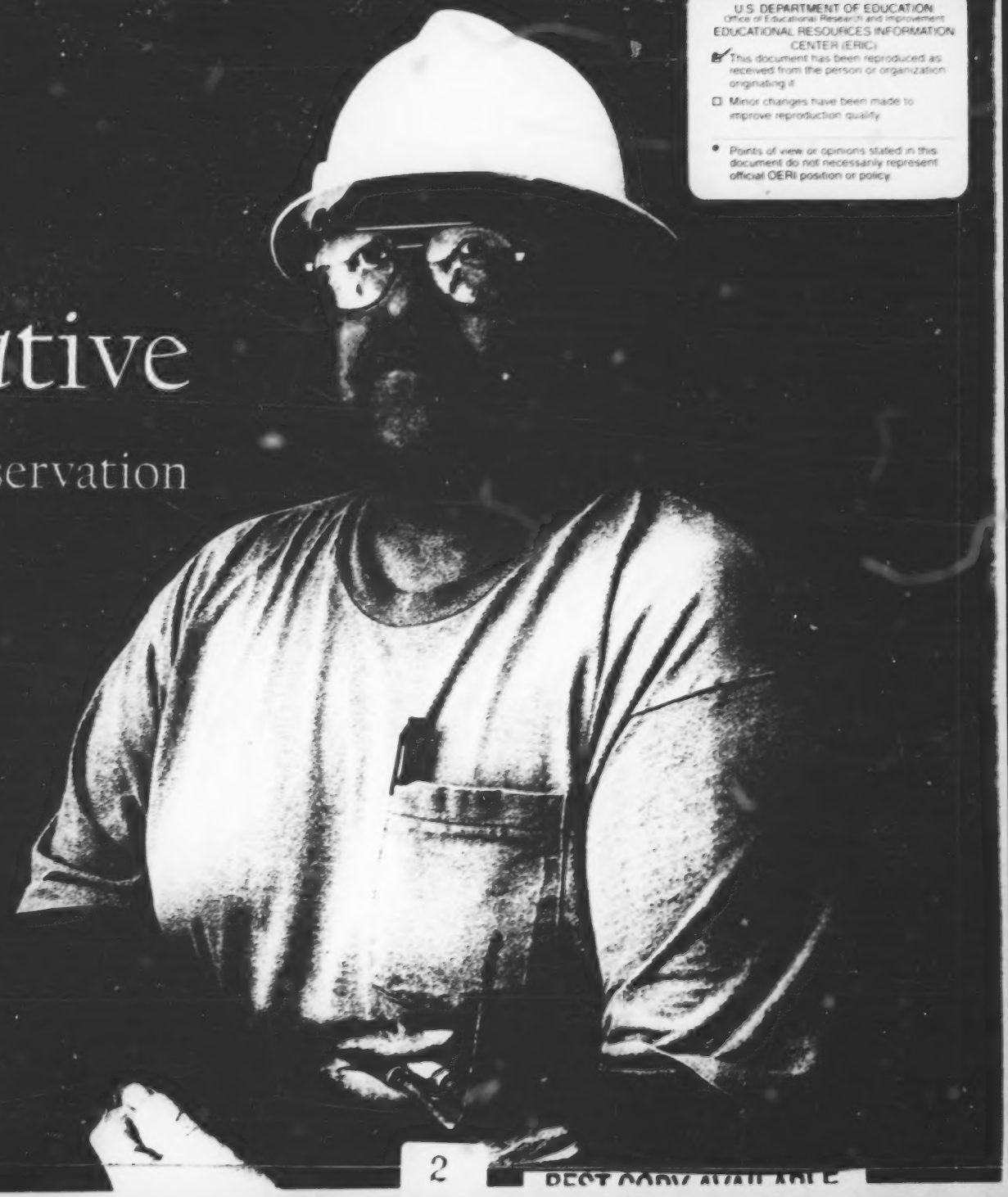
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

THE FEDERAL ARCHEOLOGY PROGRAM

REPORT TO CONGRESS
1996-97

ED 428 916

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



native

preservation

RC 021 886

BEST COPY AVAILABLE

Renewing Our National Strategy for Federal Archeology

The stewardship of America's archeological heritage is a well-established policy and function of the federal government. Interagency cooperation and partnerships are fundamental to this mission. Archeological resources—sites, collections, and records—are unique and fragile. They must be used wisely and protected for future generations.

In 1991 the Secretary of the Interior identified areas of special emphasis for federal agencies with archeological programs. This update of the National Strategy renews our effort to pursue these actions.

Preserve and Protect Archeological Sites in Place

- Identify, evaluate, and document sites
- Increase our understanding of the past and improve preservation through well-designed research
- Assess and document threats to sites and monitor their condition
- Prevent or slow deterioration of sites by stabilization and other means
- Fight looting with public awareness programs and effective legal strategies among archeologists, law enforcement officers, and public prosecutors

Conserve Archeological Collections and Records

- Locate collections and records, assess their condition, and conserve appropriately
- Identify actions needed to ensure long-term care of and access to collections and records
- Undertake, facilitate, and promote research using collections and records to better understand the past

Utilize and Share Archeological Research Results

- Synthesize research results, particularly from the grey literature, to advance scientific knowledge, further preservation, and better inform the public
- Facilitate use of archeological databases by managers and researchers
- Develop data standards to better share research results

Increase Public Education and Participation in Archeology

- Establish education programs as a regular agency function
- Interpret archeological research for the public in a way that is accurate and understandable
- Consider the views of diverse cultural groups when interpreting the past
- Engage the public in archeology through professionally directed volunteer programs

Bruce Babbitt
Secretary of the Interior
March 1999

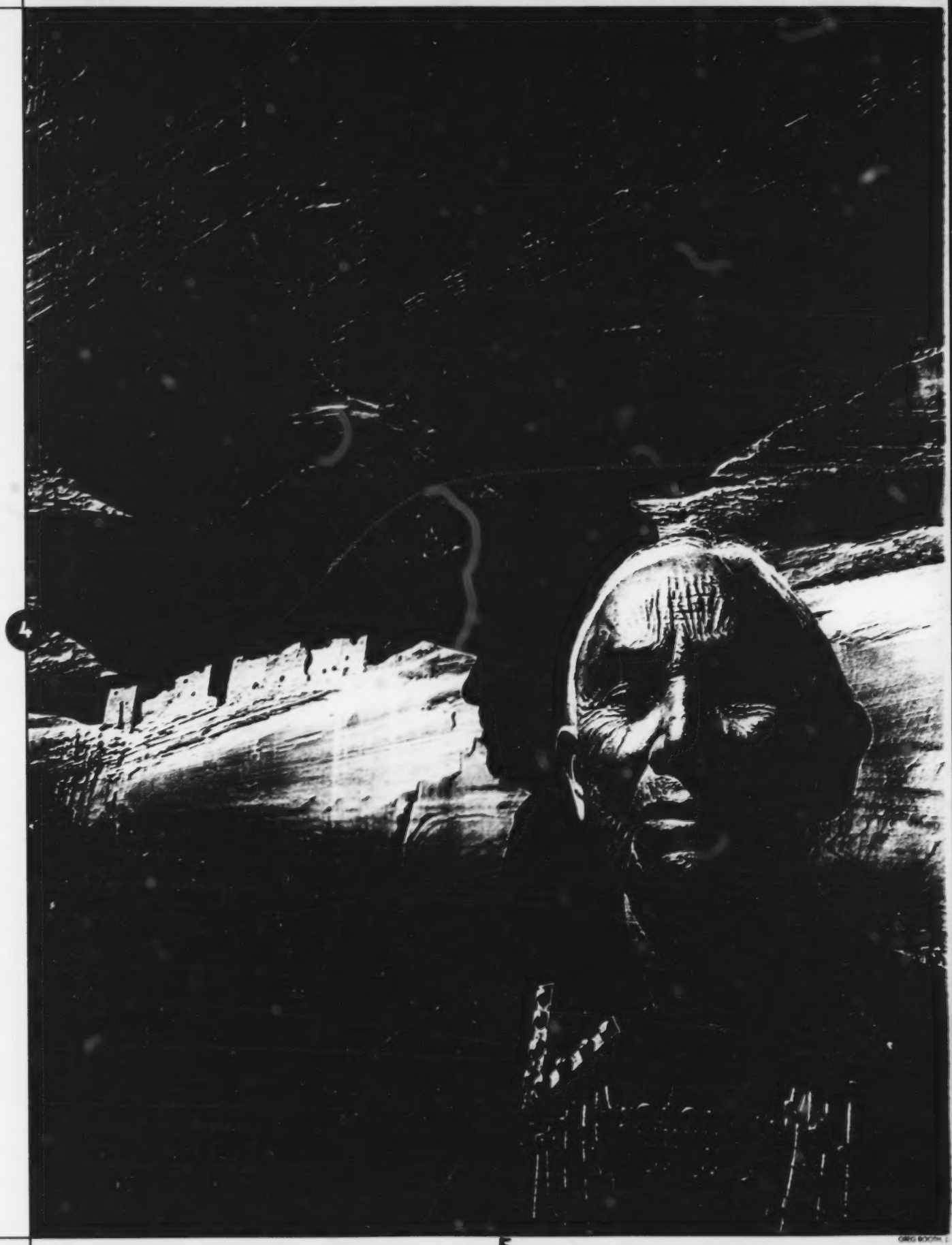
BEST COPY AVAILABLE

THE FEDERAL ARCHEOLOGY PROGRAM 1996-97

Secretary of the Interior's Report to Congress

By Daniel Haas

U.S. Department of the Interior
National Park Service
Departmental Consulting Archeologist
Archeology and Ethnography Program
Washington, D.C.

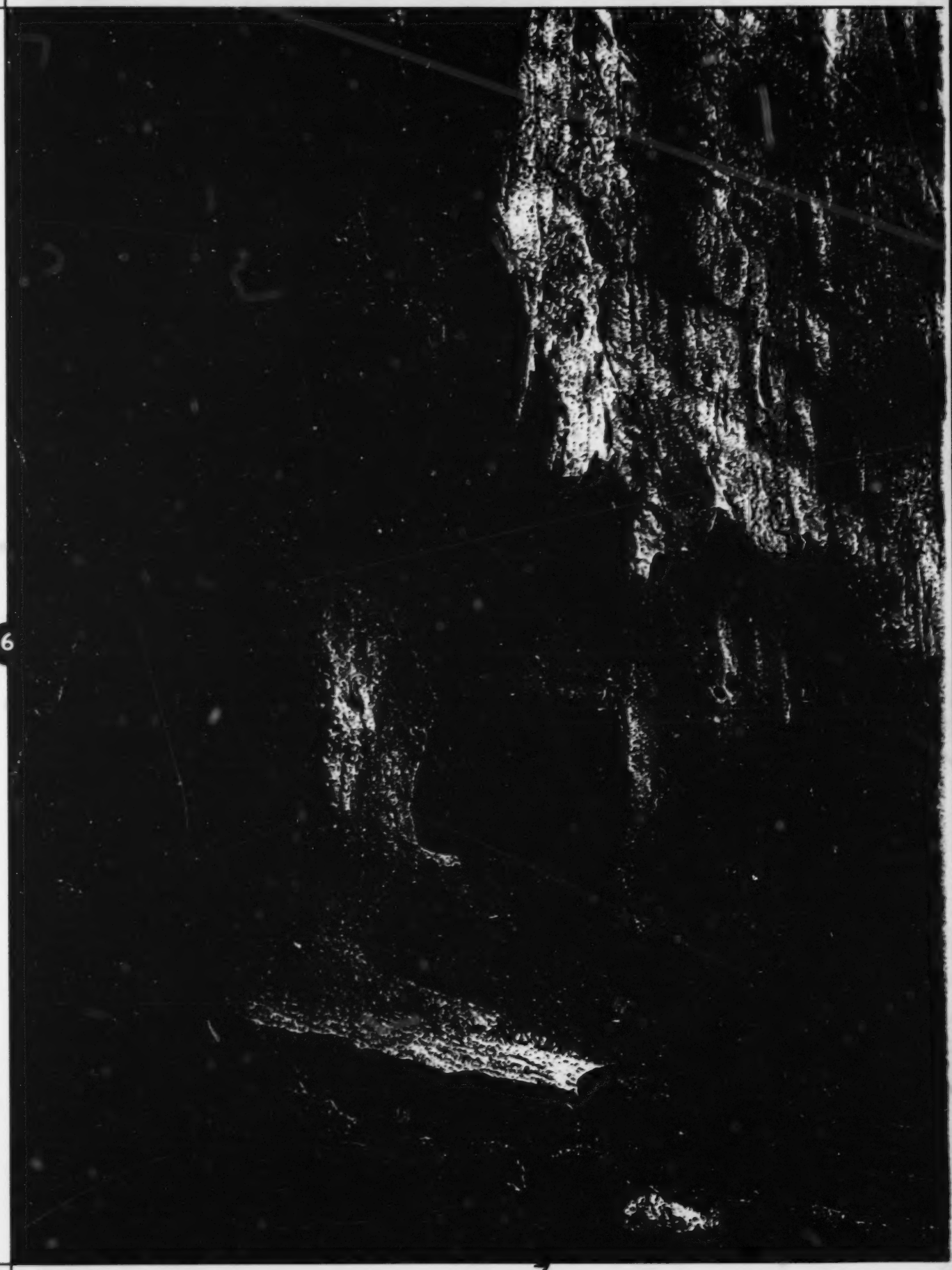

4

CONTENTS

INTRODUCTION 6
RECOMMENDATIONS 10
OUR NATIVE PARTNERS IN PRESERVATION 16

1. Discovery and Preservation 24
2. Preventing Looting and Vandalism 36
3. Reaching Out to the Public 44
4. Conserving Collections and Sites 54

LEFT: *Navajo couple at New Mexico's Canyon de Chelly with White House Ruin in the background*



6

BEST COPY AVAILABLE

INTRODUCTION

The archeological record—what has been left behind by those who came before—is a vast store of knowledge about our diverse cultural heritage. That record is fragile and irreplaceable, constantly undergoing changes from cultural and natural processes that threaten the valuable information it contains. Our knowledge of the past depends on how well we preserve and investigate this wealth of information.

The American people have charged their government with preserving an estimated 6 to 7 million archeological sites on 743 million acres of federal and tribal land. The archeology done by government agencies is required by the Archaeological Resources Protection Act and the National Historic Preservation Act. One important goal is to preserve sites that are (or may be) eligible for the National Register of Historic Places and that are protected under the Archaeological Resources Protection Act. Agencies must consider the effect projects they conduct, fund, or authorize have on these sites. These projects are on federal, tribal, state, or private land, entailing road construction, mining, logging, building prisons, and other earth-disturbing activities.

This report, called for by the Archeological and Historic Preservation Act and the Archaeological Resources Protection Act, assesses the accomplishments of agencies with archeological programs as well as the impact of federal projects on the nation's archeological heritage. The latter legislation, passed in 1979 to counter rampant loot-

LEFT: *Ancient rooms in the cliff of Long House, an Anasazi ruin at Bandelier National Monument, New Mexico*

BEST COPY AVAILABLE

ing, also calls for federal land managers to issue permits for archeological work, create public awareness programs, undertake comprehensive surveys of lands, and document archeological crimes.

The extent of an agency's involvement in the federal archeology program depends on its mission; many have archeologists on staff. Land management agencies are responsible for vast tracts containing hundreds of thousands of sites; the Bureau of Land Management, Forest Service, Fish and Wildlife Service, and National Park Service manage 85 percent of federal lands and 80 percent of known archeological sites on these lands. The responsibility to preserve is equally important for regulatory agencies such as the Nuclear Regulatory Commission and development agencies such as the Department of Housing and Urban Development, which sponsor and license many projects on private land.

The Secretary of the Interior, who has a leading role in preservation, developed a strategy that agencies should consider in carrying out their stewardship responsibilities. First issued in 1991, the strategy outlined actions to take in preserving and researching sites, preventing looting and vandalism, educating the public, and conserving collections and records. This report examines progress and recommends further actions. To lead us into the next millennium the Secretary has issued a new strategy asking agencies to renew their efforts (see inside front cover).

The federal archeology program brings together the archeological community, private groups, and the public; it reaches millions of Americans. Partnerships are fundamental. This report highlights cooperative efforts with tribes (see page 16), who are gradually taking more responsibility in preserving sites, collections, and records under their jurisdiction and elsewhere.

With any effort of this magnitude, incomplete data have an effect; the statistics here are a general measure of the archeology program rather than a precise calculation. In all, 39 agencies and departments provided information (HUD and the Federal Highway Administration did not). These statistics are on the Park Service web site at www.cr.nps.gov/aad/src.htm.

Departments and Agencies That Conduct, Sponsor, or License Archeology

AF *Air Force*
ANG *Air National Guard*
BIA *Bureau of Indian Affairs*
BLM *Bureau of Land Management*
BOP *Bureau of Prisons*
BOR *Bureau of Reclamation*
CG *Coast Guard*
COE *Corps of Engineers*
DOA *Department of the Army*
DOE *Department of Energy*
DOI *Department of the Interior*
EDA *Economic Development Administration*
EPA *Environmental Protection Agency*
FAA *Federal Aviation Administration*
FERC *Federal Energy Regulatory Commission*
FHA *Federal Highway Administration*
FMHA *Farmers Home Administration*
FRA *Federal Railroad Administration*
FS *Forest Service*
FSA *Farm Service Agency*
FTA *Federal Transportation Administration*
FWS *Fish and Wildlife Service*
GSA *General Services Administration*
HHS *Department of Health and Human Services*
HUD *Department of Housing and Urban Development*
INS *Immigration and Naturalization Service*
MMS *Minerals Management Service*
NASA *National Aeronautics and Space Administration*
NOAA *National Oceanic and Atmospheric Administration*
NPS *National Park Service*
NRC *Nuclear Regulatory Commission*
NRCS *Natural Resource Conservation Service*
OSM *Office of Surface Mining*
RUS *Rural Utility Service*
SI *Smithsonian Institution*
TVA *Tennessee Valley Authority*
USGS *U.S. Geological Survey*
USMC *U.S. Marine Corps*
USN *U.S. Navy*
USPS *U.S. Postal Service*
VA *Department of Veteran Affairs*

BEST COPY AVAILABLE

Left: *Opening to mine shaft, where the state of Utah set aside an historic mining district for posterity.*

BEST COPY AVAILABLE

RECOMMENDATIONS

Inventorying Sites Surveying lands to identify archeological sites is essential to document what we have, where it is, and what is needed to preserve it. Section 106 of the National Historic Preservation Act requires that federal agencies identify and evaluate sites before construction projects and other earth-disturbing activities. However, section 110 and the Archaeological Resources Protection Act call for agencies to inventory *all* sites in their care, regardless of how imminent the threat. If agencies know where the sites are, they can do a better job of planning long term preservation.

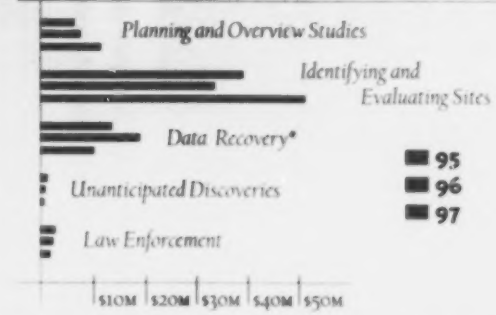
In FY 1996-97, more agencies than ever conducted inventories to meet their responsibilities under section 110 and ARPA. Twenty percent of the land surveyed by the National Park Service, for example, was driven purely by research to find and evaluate sites. Because of this rise in research, in FY 1997 the number of acres surveyed surpassed the previous year by about 1 million. Over the reporting period, the acres inventoried jumped from 9 to 11 percent of nearly 743 million acres of federal and tribal land, quite an achievement despite the amount still unsurveyed.

Recommendation: Land-holding agencies need to continue systematic inventories of sites beyond what is required for specific actions by section 106 of NHPA.

Critical to the long term protection of sites is evaluating whether they are eligible for the National Register of Historic Places, which is a goal of the National Historic Preservation Act. Land holding agencies manage around 22,000 National Register sites (see Figure 4). Roughly 65 percent of known sites on federal and tribal land have not been evaluated to determine their

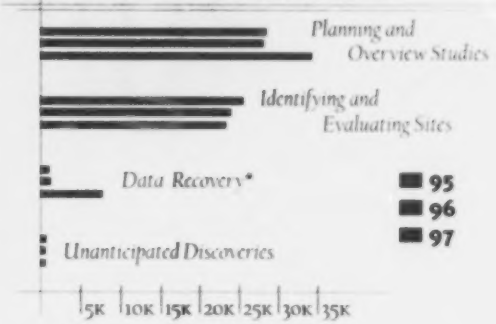
LEFT: *Tumacacori National Monument, Arizona*

1 COSTS OF THE ARCHEOLOGICAL PROGRAM



*GATHERING INFORMATION BY EXCAVATING, COLLECTING, OR OTHER METHODS

2 NUMBER OF ARCHEOLOGICAL ACTIVITIES



*GATHERING INFORMATION BY EXCAVATING, COLLECTING, OR OTHER METHODS

significance in terms of National Register criteria. Federal agencies can do a better job of nominating sites to the Register. Once a property has been listed, it can be better protected and interpreted for future generations.

Recommendation: **Agencies should reduce the backlog of sites needing evaluation for the National Register of Historic Places.**

Preventing Looting and Vandalism

Agencies face a considerable challenge in protecting the nearly 700,000 known sites on their lands. Unfortunately, while the number of reported archeological crimes continues to rise, the percentage of arrests and citations declined during the period covered by this report.

It is very difficult to protect sites without systematic monitoring and enforcement. Since many sites are in remote areas, monitoring must be planned thoughtfully to be successful. Only the Tennessee Valley Authority has a consistent, agency-wide protocol.

Recommendation: **Endangered sites should be systematically monitored to document their condition and deter looting.**

Not all violations result in prosecutions. The diligence of law enforcement officers and legal authorities, however, is narrowing the gap. The number of cases prosecuted under ARPA is on the rise, demonstrating that prosecutors are becoming more familiar with its criminal provisions. When criminal prosecution is not the chosen course, civil action is very often a good, cost-effective alternative, one that is drastically under-used.

Recommendation: **The civil provisions of the Archaeological Resources Protection Act should be used more frequently to prosecute.**

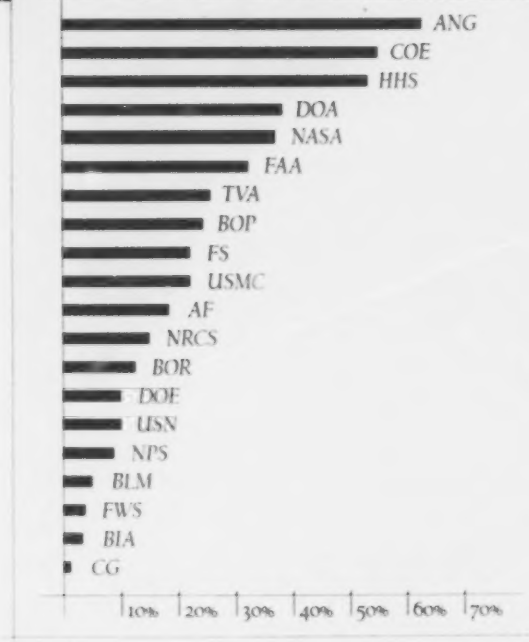
Reaching Out to the Public

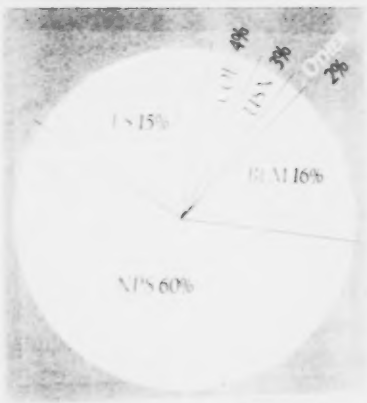
Many agency archeology programs are conducting educational activities and volunteer projects with the help of grants and partners. The greatest difficulty is sustaining support from one year to the next. With the exception of the Bureau of Land Management and the National Park Service, most agencies do not set aside money for education on an annual basis. To build on their accomplishments, agencies need to establish and fund education programs as a regular agency function.

Recommendation: **Establish education as a regular agency function.**

The public is being exposed to archeology, cultural lifeways, and stewardship through a variety of programs and products. We know that participation in volunteer programs is high and that people enjoy the experience. But what are they learning? No matter how innovative the approach or clear the message, there is no way to gauge the impact without meaning

3 **Federal and Tribal Land Surveyed at the End of Fy97, by Agency**



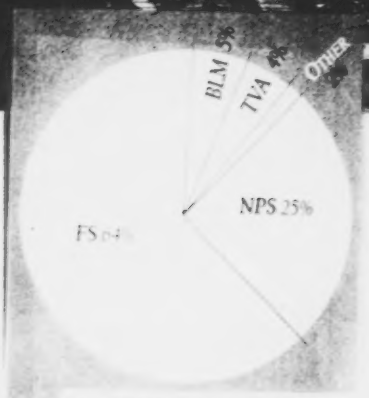


Federal Sites on the National Register, By Agency, Fy 97

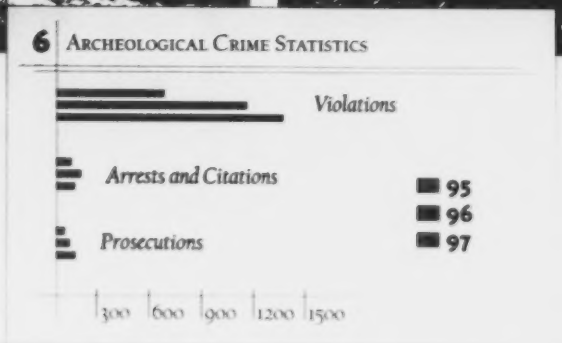
BEST COPY AVAILABLE

Above: *This turn of the century Navajo sweat lodge, in the path of a uranium mining project in New Mexico, was protected under the aegis of the Nuclear Regulatory Commission.*

PHOTOS GLEN CANYON NRA



ARCHEOLOGICAL VIOLATIONS ON AGENCY LAND, FY97



ful measures and systematically collected data. Evaluation is essential.

Recommendation: **Public programs and products should be periodically reviewed.**

Conserving Collections and Records

Preserving federal archeological collections and records is often overlooked as a stewardship responsibility. Interior and Defense are making progress in locating and assessing their collections. The next hurdle will be ensuring adequate treatment and care for all collections.

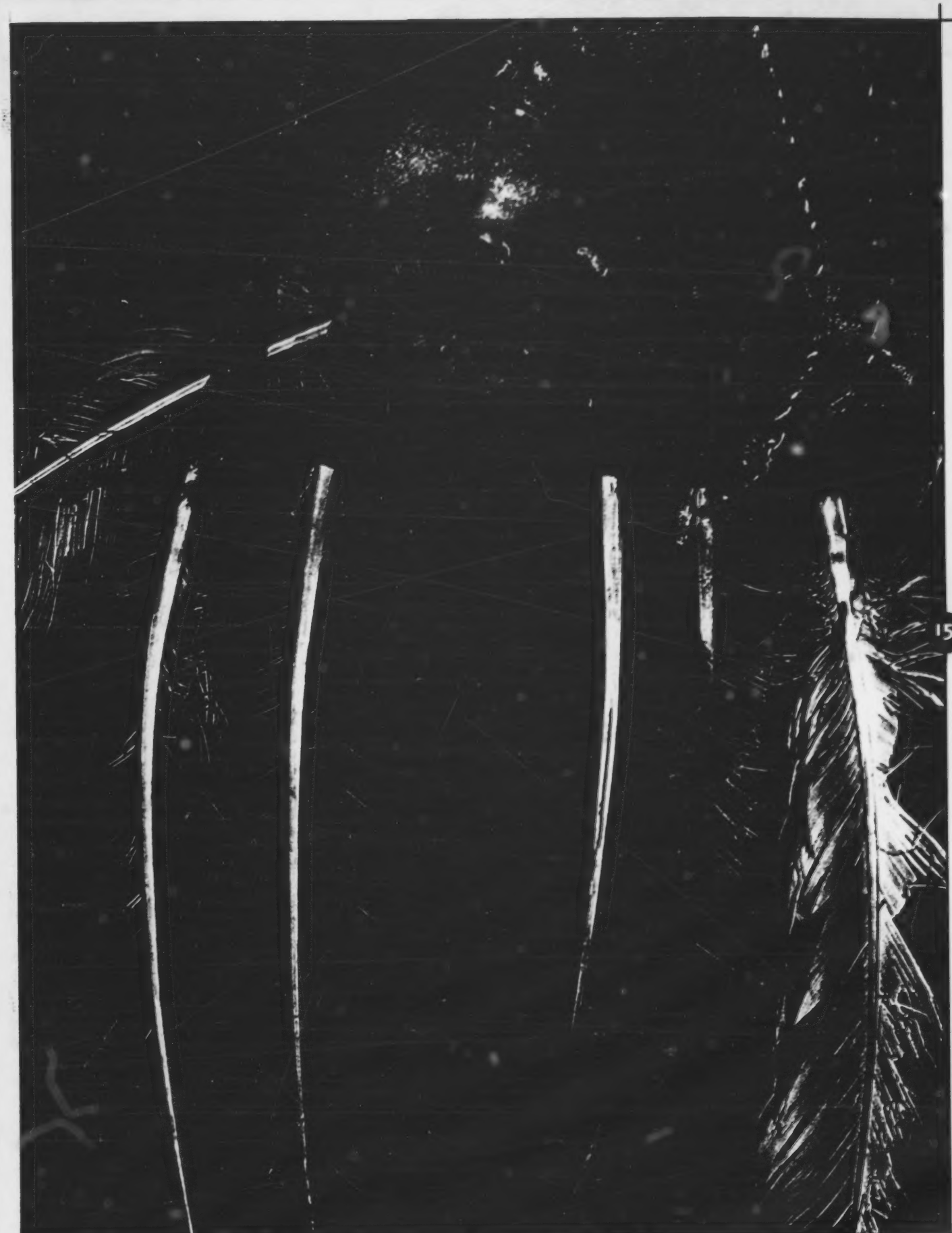
Recommendation: **Ensure long-term care of and access to collections and records.**

The growing number of reports from archeological research can generate considerable scientific knowledge about the past. Accessing them can be difficult, however, because many are not widely disseminated. The National Archeological Database (accessible on the web at www.cr.nps.gov/aad/nadb.htm) and some state databases provide access to this material; more attention is needed in this area, including database integration.

The collections themselves have enormous research value; researchers should be encouraged to study them as an alternative to excavation, which furthers the goal of conserving sites in place.

Recommendation: **Undertake, facilitate, and promote research using collections and records.**

ABOVE: *This Native American basket and fully intact ceramic pot were found by a group of students at Arizona's Glen Canyon National Recreation Area. The discovery prompted an emergency recovery effort by the National Park Service.* **RIGHT:** *Western Indian artifact.*



15

FRED MANG, JR./NPS HARPERS FERRY CENTER

The United States has a government-to-government relationship with many native groups, requiring consultation between the parties in matters of land use. The issues can be controversial, the dialogue difficult, the negotiations complicated. Many times, however, collaboration—in often innovative and altruistic form—arises to foster mutually beneficial partnerships in preservation. ■ Archeological research, when well-designed and clearly articulated, has been accepted by native groups as one way to identify sites and reveal histories that help validate their heritage. Some do their own archeology. Agencies provide assistance in using geophysical technology and conserving collections and records; Native Americans supply information on the traditional use of the land, often helping monitor and restore sites. ■ Education programs focused on common concerns—rather than a one-way dialogue promoting positions or values—have also had positive results. The Society for American Archaeology, with support from the Bureau of Reclamation and the Park Service, offers workshops for Native American educators using archeology to build K-12 curricula. Agency archeologists mentor native youth in preservation, with internships for the college-bound. Agencies and universities join together to sponsor field schools and volunteer projects. Tribal preservation programs work with agencies to teach archeology and native heritage in the schools. ■ These efforts—several are described within—strengthen the relationship between Native Americans and archeologists, encouraging the shared stewardship of our heritage.

LEE MARMON

ABOVE: *Eagle dancers, Laguna, New Mexico*

BEST COPY AVAILABLE

SHARING POWER

COMMUNICATING "FROM THE GROUND UP" **BY BOB STARCK, CLAYTON MARLER, AND RANDY THOMPSON**

Diana Yupe, Shoshone-Bannock tribal anthropologist, has briefly disappeared down a bank of the Big Lost River, the only water for miles in this sagebrush desert of the Idaho National Engineering and Environmental Laboratory. She returns to us with a bundle of plants in her arms and a lesson in Indian hemp (Apocynum cannabinum). Diana speaks to us about the strong fibers of the plant and of the traditional ways that it was used. We listen, ask questions, and eventually leave with an even greater appreciation for this small sliver of desert. Renewed also is our shared resolve to protect the area, because it is, as we learn from Diana, the only part of the federally owned lab's 893 square miles where she has found the plant.

■ Although much of our work is conducted in conference rooms, today we have ventured out to monitor a prehistoric site being impacted by the wanderings of that ubiquitous western fixture, the range cow. "We" are the lab's cultural resources working group, preservation professionals from the Idaho office of the Department of Energy (the agency responsible for the lab), the Shoshone-Bannock Tribes, and Lockheed Martin Idaho Technologies Company, the contractor that runs the operation. ■ Shared lessons such as this one on hemp ebb and flow between us, sometimes changing our views, sometimes not, but always increasing our knowledge. It is this sharing that fosters the group's success. Because we make decisions jointly, our discussions tend to be very successful. We recognize that if power is not shared, team members may feel manipulated, which ultimately undermines our partnership. While members often bring different values, goals, and solutions to the table, we all agree that preservation is the most important issue. Towards this end, the team has embraced the principle, expressed by Hubert H. Humphrey, that "freedom is hammered out on the anvil of discussion, dissent, and debate."

In 1992, the Shoshone-Bannock, on whose aboriginal land the lab is located, entered into an agreement with the Department of Energy, in effect establishing a partnership between our nation and theirs. In the spirit of openness fostered by the agreement, our group was born. Since the beginning, we have recognized the need to facilitate communication from the ground up. Addressing differences early in planning the lab's work—which involves cleaning up the legacy of Cold War era nuclear reactor testing—helps reduce potential conflicts in the sensitive relationship between steward and stakeholder. Now, there are extensive archeological surveys in advance of projects, to ensure there will be no unanticipated discoveries. Several cases have been resolved under the Native American Graves Protection and Repatriation Act. We have widened the definition of what we intend to preserve—taking into account resources like the hemp. And there has been better coordination with the state preservation office, along with heightened awareness of historic properties from recent decades.

But the group does more than ensure compliance with the law; it also serves as a forum. The result is increased sensitivity all around. Yupe says: "Our responsibility is to actively and aggressively pursue the ultimate assurance that this ecosystem, and our part of it as humans, will survive in the future. This concept is to guarantee the future of our Mother Earth, the Father Sun, and all the creations of both. As tribal representatives in the

■ ABOVE: *Shoshone-Bannock tribal members and staff from DOE's consultant Lockheed Martin sift soil and document cave site.* RIGHT: *The Big Lost River, with Big Southern Butte, a tribal sacred place, in the background.*

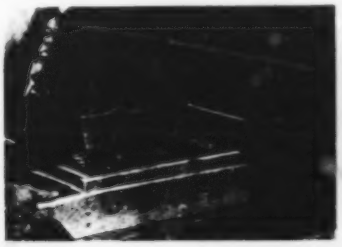
NATIVE PARTNERS IN PRESERVATION

group, we are striving toward environmental and cultural preservation through positive interaction with DOE."

Respect for individual values, and trust that builds from sharing power, sharing knowledge, and simply sharing space on this planet, promises to keep the group viable in years to come.

REPORTING AGENCY:
Department of Energy

CONTACT POINT:
starckra@id.doe.gov



'THE FOOTPRINTS OF OUR ANCESTORS'

CONSERVING ROCK IMAGERY IN THE SOUTHWEST BY SHARON HATCH

MICHAEL MCLAUGHLIN

The "footprints of our ancestors" is how native people refer to rock imagery in the Southwest. At Colorado's Falls Creek Rock Shelters, understanding native culture is central to preserving such images. To that end, a group of tribes has worked closely with the Forest Service, who manages the shelters, to preserve and interpret the delicate images before they fade away forever. ■ The site is considered among the most important in the Southwest, yielding some of the earliest radiocarbon dates for the Basketmakers, the first members of the Anasazi culture. Nearly a thousand years of occupation, from 300 B.C. to A.D. 700, have been documented, with well-preserved perishables usually absent at such early sites: baskets, sandals, blankets, mats, clothing, and jewelry. ■ Since 1934, the shelters have been extensively researched (and vandalized). Documenting the rock images has not been a priority, however, despite their importance. They form a collage of more than 500 human, faunal, and geometric figures, creating a spectacular display of color and human lore. They are the only polychrome pictographs in the area, providing a unique opportunity for research within a well-dated archeological context. Establishing a permanent record has been long overdue. ■ Work got underway in 1996 thanks to a grant from the Colorado Historical Society, which enabled the San Juan-Rio Grande National Forest to partner with the University of Colorado-Cortez Center, Fort Lewis College, Colorado Archaeological Society, and Mesa Verde National Park. After the panels were documented and preserved, interpreting them was next.

DARCY DZINGNC

ANN BOND

Until tribal elders and cultural advisors were invited to take part, site managers and archeologists didn't know anything about the traditional significance of the images. Euro-Americans find deciphering them difficult; in the words of archeologist Sally Cole, "It's like trying to understand the Apple Computer logo hundreds of years ago before computers. You'd be able to tell it depicts a piece of fruit with a bite out of it, but that's not the message it is communicating."

Advisors from the Zuni, Hopi, Navajo, Ute Mountain Ute, Southern Ute, Uintah-Ouray Ute, and Jicarilla Apache Nations, 19 Pueblos, and the New Mexico Indian Tourism Association provided information on clans, migrations, and events expressed in the symbols. The advisors—who discouraged use of the

term rock "art" in favor of "images"—said that traditional oral history should inform all interpretation. They also advised the Forest Service not to reproduce religious images. Thanks to these advisors, archeologists, site managers, and visitors will be sensitized to the meaning of the images.

At present, the shelters are closed to the public, to prevent vandalism as well as out of respect to the tribal nations (the site is considered an ancestral burial ground, and by association the images contain sensitive information). Also, the Forest Service wants to preserve the floors of the shelters, some of which have remain undisturbed since Native Americans used them. As dialogue and compromise continue to drive management of the site, alternate forms of interpretation will be incorporated that include the Native American worldview.

The San Juan-Rio Grande National Forest is honored and very fortunate to have the support of tribal elders and traditional advisors—for they are our best, and only, teachers.

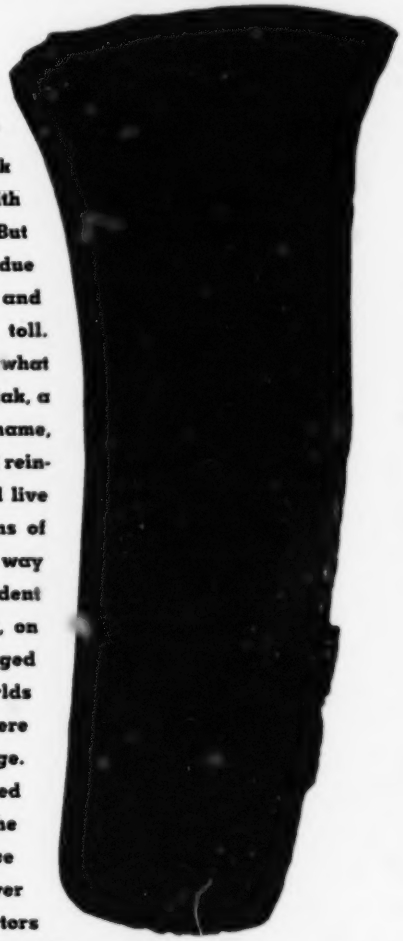
REPORTING AGENCY: U.S. Forest Service
CONTACT POINT: shatch/r2_sjrg@fs.fed.us

BEST COPY AVAILABLE

LEFT: *Tribal representative at a meeting on managing the Falls Creek site; volunteer documents rock images in the North Shelter.* **ABOVE:** *The cliffs and rock shelters of Falls Creek Archaeological Area.*

NORTHERN EXPOSURE

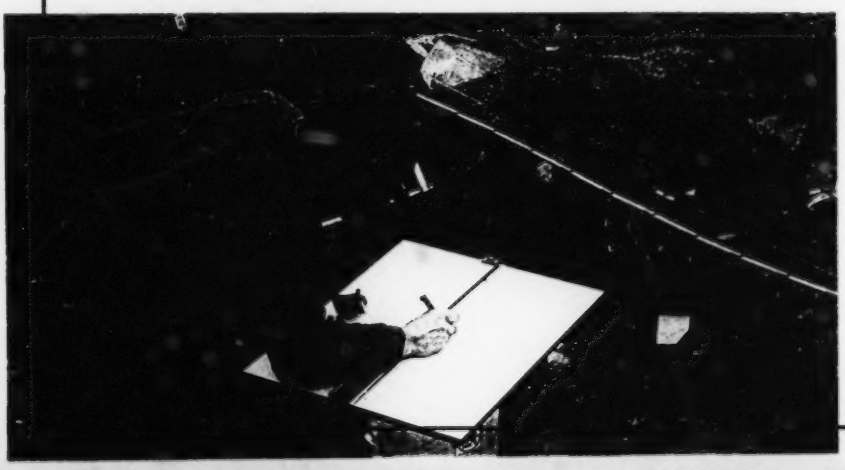
YOUNG ALASKANS, FACE TO FACE WITH THEIR HERITAGE **BY ROBERT GAL**



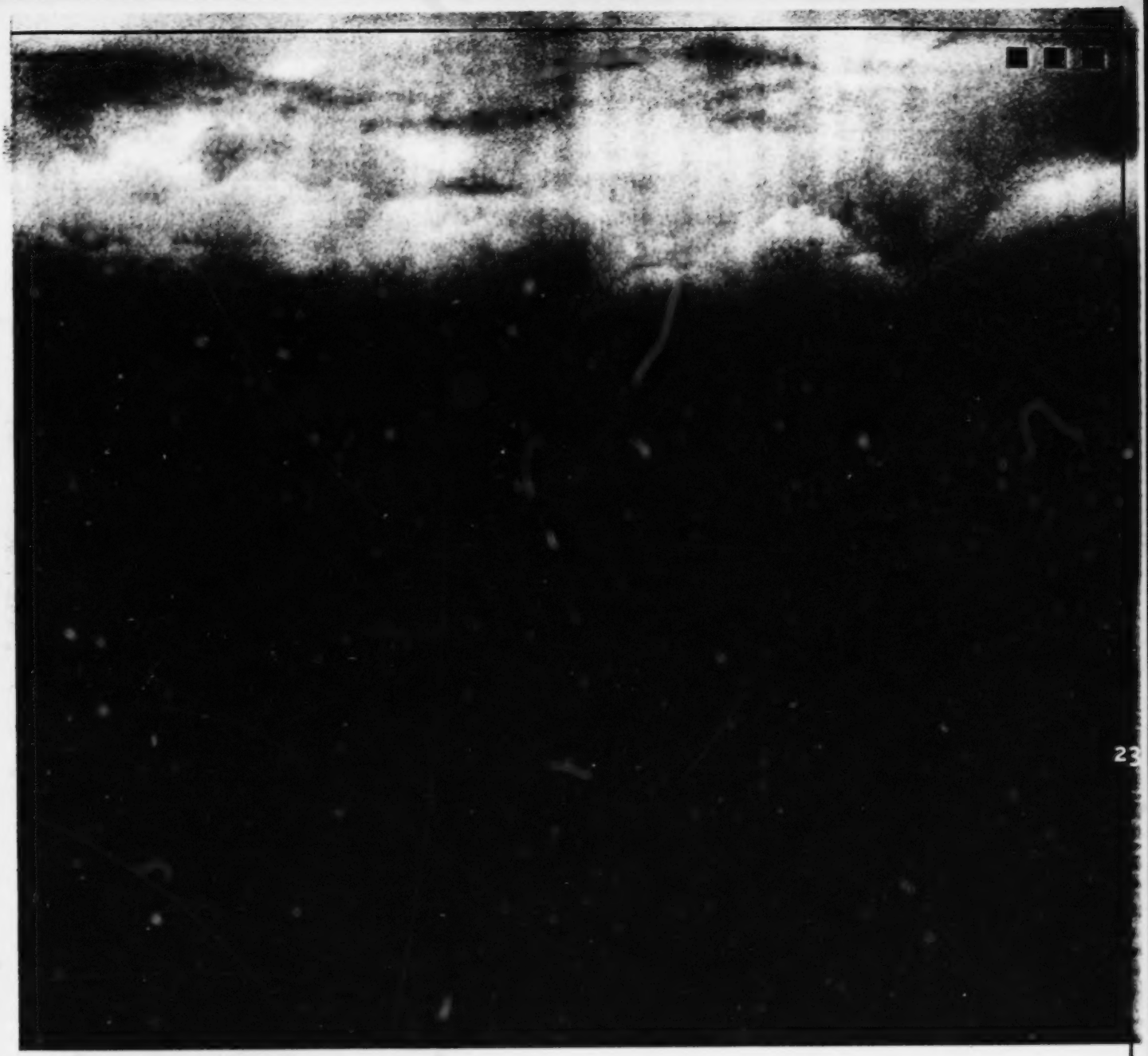
ALL PHOTOS NPS

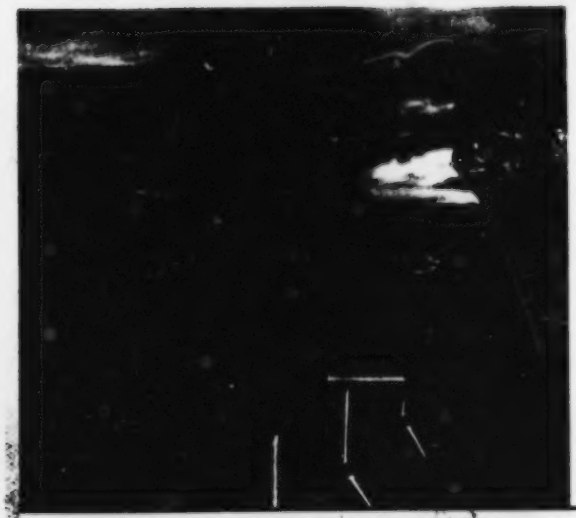
For 700 years, the "wilderness" of northwest Alaska's Noatak National Preserve was alive with the sound of Inupiaq daily life. But in the 1880s, famine struck, due largely to the decline of the caribou, and European diseases began to take their toll. Traditional lifeways became untenable, and what was left of the Inupiaq people moved to Noatak, a settlement along the river of the same name, attracted by a mission, a school, a store, and reindeer herds. ■ Today, their descendants still live there, while inside the preserve the remains of several dozen villages attest to an Inupiaq way of life that is no longer practical. The president of a Kotzebue Native Alaskan Corporation, on behalf of the Inupiaq people, once challenged anthropologists to acknowledge the two worlds confronting Inupiaq youth and to show where the teachings of elders and science converge. In 1995, when NPS archeologists discovered looting at a former Inupiaq village inside the preserve, they were presented with a chance to meet the challenge. No excavations had ever been conducted at the site. ■ Several factors dovetailed to enhance the opportunity. Normally, cold weather ends the field season before local schools convene, precluding visits by students. In 1996, however, archeologists worked until late August and the academic year started early, so the senior class of the Napaaqtugmiut School, located in Noatak village, was invited to the remote dig. Some of their ancestors had once lived in the abandoned settlement.

■ Two Cessna aircraft ferried the class to the site. Once on the scene, the students were intently focused, asking questions, offering information, and spontaneously passing around a video camera as they engaged the archeologists. Today, the exigencies of 20th



■ ABOVE: *Inupiaq tool handle made of antler.* LEFT: *Mapping an archeological feature.*



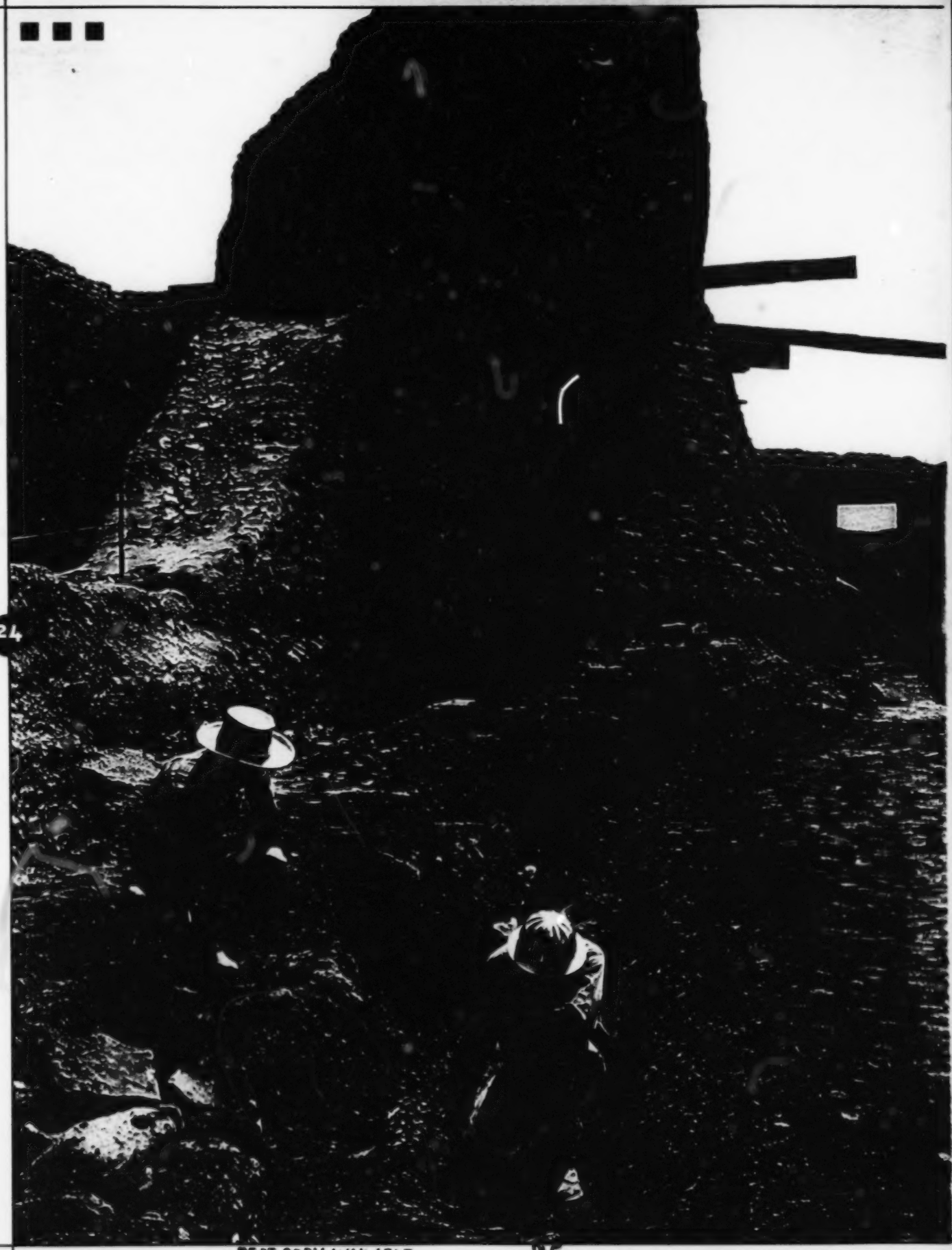


century life preclude personal experience with the landscape. Sitting in long-unoccupied houses and handling implements lost or abandoned, the students recalled stories passed down by their elders: of caribou drives, of journeys to the coast, of hardship and famine, good times and bad. The students breathed life into the abstractions formulated by the archeologists over the course of the summer. At the end of the day, the students and archeologists parted, having shared an image of the land not as a "wilderness," but as a vividly populated landscape.

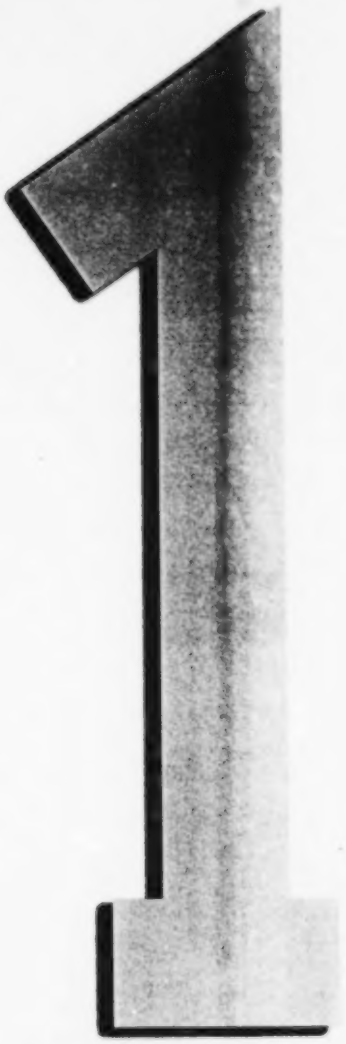
REPORTING AGENCY:
National Park Service

CONTACT POINT:
bob_gal@nps.gov

LEFT, ABOVE: *Caribou crossing Lake Kaiyak.*



BEST COPY AVAILABLE



Discovery and Preservation

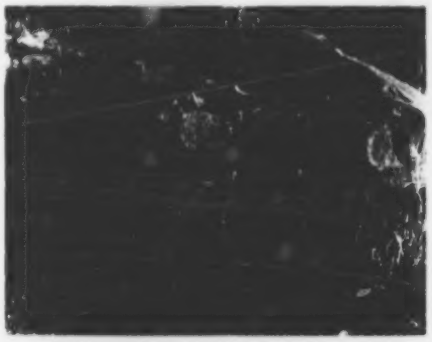
IN FY 1997, ARCHEOLOGICAL WORK DONE BY FEDERAL agencies—carrying out planning and overview studies as well as identifying and evaluating sites in their care—increased to nearly 64,500 projects, surpassing FY 1995's total by about 18 percent. The most dramatic increase was in recovering data from sites in harm's way of construction projects (that is, gathering information through excavation, collecting, or other methods). ■ The number of planning and overview studies (mandated before any earth-disturbing federally sponsored projects), was up slightly, totaling around 33,700. About 69 percent of these required fieldwork. Unanticipated discoveries remained basically level, accounting for less than 1 percent of all archeological activities. In all, almost 36,000 new sites were identified in FY 1997. ■ Federal agencies reported a 2 percent increase in land surveyed for possible archeological sites, which is the highest number in many years. To illustrate the challenges agencies face, however, all of the land surveyed to date accounts for a mere 11 percent of nearly 743 million acres. The success so far is due partly to initiatives mandated by the Archaeological Resources Protection Act and section 110 of the National Historic Preservation Act. ■ The Tennessee Valley Authority and the Bureau of Reclamation are currently completing surveys of the acreage surrounding reservoirs in their charge. The Park Service is conducting similar research. The Corps of Engineers and the Forest Service lead the larger land management agencies in the total amount of their land surveyed—over 20 percent. Despite these valuable efforts, inventorying federal and tribal lands is a slow and meticulous process that will take decades. Federal agencies also have the responsibility for managing collections of artifacts and records generated by years of archeological investigations. ■ In short, land managing agencies face a formidable task in protecting known sites on their land, which number nearly 700,000. Even though irreplaceable resources are threatened daily by looting, development, and natural forces such as erosion, agencies continue to be hindered by limited funds and personnel. The National Register of Historic Places, which bestows some measure of protection, has about 22,000 archeological sites, but the backlog yet to be evaluated for the list is near 65 percent. Among the large land management agencies, the Fish & Wildlife Service reported the highest number of unevaluated sites, 90 percent. ■ This, then, is a rough sketch of the state of federal stewardship. Though it focuses on the myriad obstacles agencies face, the articles that follow in this report highlight the creativity and dedication of those who have achieved a measure of success in preserving our national legacy.

LEFT: *Archeologists in the ruins of the Spanish Mission at Pecos National Monument.*

Legacy of the Ancients

U.S. NAVY TAKES STOCK OF A TREASURE By Peggy Shoaf

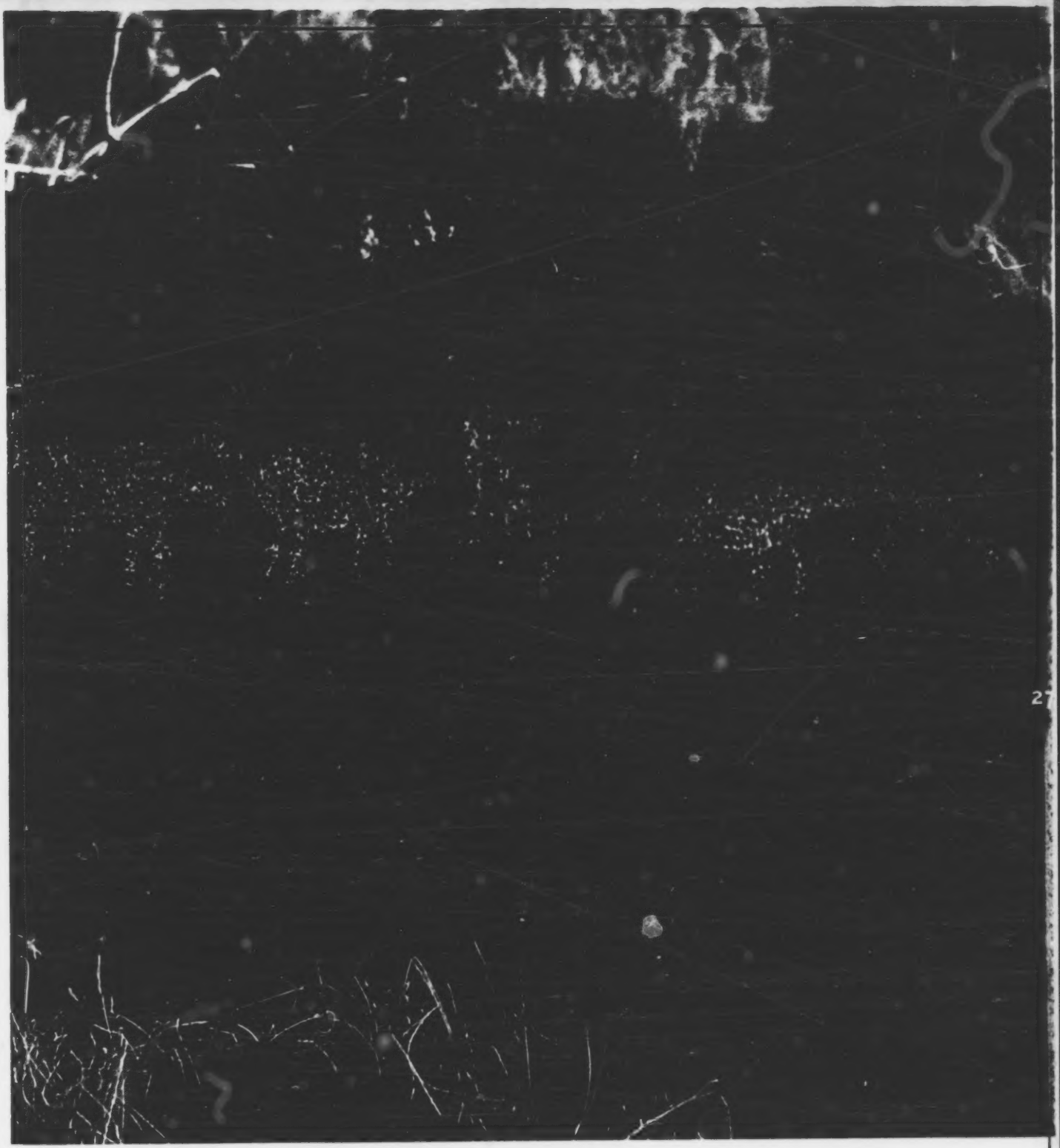
The Naval Air Weapons Station at China Lake, California, contains perhaps the most remarkable concentration of rock art in the world. Although a 99 square mile piece of the place is now a National Historic Landmark—in an area called Big and Little Petroglyph Canyons—archeologists have long suspected that more was out there. "It's unrealistic to believe a group of people confined their life activities to a box-shaped area drawn on topographic map lines," says Carolyn Sheperd of the Navy's China Lake environmental project office. In fact, she says, the Navy had always intended to re-survey to designate a more realistic boundary. In June 1996, her office enlisted Far Western Anthropological Research Group, Inc., to take a closer look at the rugged terrain.



After examining earlier studies, Amy Gilreath, senior archeologist for Far Western, hypothesized that the petroglyphs are part of what she calls the Coso Complex (after the nearby Coso Mountains). Her research suggested that certain sites and features tend to be together—such as petroglyphs, rock shelters, and tool-making areas—and that the petroglyphs are usually found among volcanic rock formations.

Archeologists first tested the theory inside the landmark, dividing the study roughly in half between granite and volcanic rock formations. Whereas the granite formations yielded 1 site per 67 acres, the volcanic areas had 1 for every 31. When the team ventured beyond the boundary, they discovered a concentration of petroglyphs that may even exceed that of the two canyons. Nearly 200 sites were found, over half of which are petroglyphs, along with rock filled circles, remnants of walls, and hearths. One of the most exciting discoveries was a starburst-shaped geoglyph—a design sculpted from sand and rocks.

Above: *Ancient rock art depicting a line of bighorn sheep at the Navy's Air Weapons Station at China Lake.*



According to Sheperd, it resembles a five-point star with a tail. The Navy wants to expand the landmark to encompass the sites—accessible only by helicopter—and have them professionally filmed so that patrons of local libraries can see the handiwork of those who lived there so long ago.

REPORTING AGENCY: U.S. Navy
CONTACT POINT: shoafpa@navair.navy.mil

BEST COPY AVAILABLE

On the Trail of the Earliest Americans

NEW DISCOVERIES IN THE HEARTLAND · By Neal H. Lopinot and Jack H. Ray

Great discoveries often come from being in the right place at the right time. The Big Eddy site in southwest Missouri is a case in point. Over the last several years, an eroding riverbank has revealed the entire prehistoric record in stratified deposits ranging from Early Archaic, through the Paleoindian period, to an even earlier era. The Paleoindian and earlier deposits date from at least 10,000 to 13,000 years ago. Paleoindian sites are rare enough, but most occur in higher areas where remains are shallow and have been disturbed. The Big Eddy site, however, is the first substantial, stratified, relatively intact, multi-component Paleoindian site ever found next to a river in eastern North America.

■ The site was found due to erosion by large releases of water from a hydroelectric dam at Stockton Lake, managed by the U.S. Army Corp of Engineers. Though erosion can destroy archeological sites, in this case it provided abundant cross-sectional views of past landforms that otherwise would have remained buried. Because of this, the lower Sac River Valley is an ideal scientific laboratory for studying human adaptation to an ever changing natural and cultural landscape.

In 1997, the Corps funded investigations at the site in the hopes of mitigating the erosion. Headed by archeologists from Southwest Missouri State University, and working under the auspices of Burns and McDonnell, Inc., a Kansas City engineering firm, the team included individuals from the Universities of Arkansas, Kansas, and Kentucky, Tulsa University, and the Illinois State Museum. Our findings far exceeded expectations, yet any hopes of mitigating the damage were quickly dashed. A substantial portion of the site has probably already fallen in the river, and more continues to erode each year. Nevertheless, much still remains for further investigation.

The finding could not have been possible without the cooperation of numerous

BEST COPY AVAILABLE

local citizens and agency officials. One of the important discoveries in the late Paleo deposits was a complete San Patrice point, a style of projectile point typical of Louisiana and nearby Gulf Coastal Plain states well to the south. Radiocarbon dating of charcoal found near the point indicates that late Paleoindian people used the Big Eddy site at least 10,000-10,500 years ago. The timing could not have been better, either. Investigators had the good fortune of finding the point less than a half-hour before a throng of newspaper, radio, and television reporters arrived to cover the investigation, and after several grueling weeks of finding nothing even remotely comparable.

The Corps funded extensions of the project on two separate occasions. The first came after local landowners and artifact collectors showed investigators what they had found at the site over the years. Several of these collections contained Clovis fluted and other Paleoindian points, which the archeological team felt warranted further investigation. They soon found a portion of a Clovis point "in situ," or as it was left. A series of dates from the soil around it indicates activity from about 10,700-11,400 years ago.

A second continuation was granted partly to explore deeper deposits for evidence of human use during pre-Clovis times. Some tantalizing evidence was obtained, including a small number of artifacts found below the Clovis fluted point zone: a few flakes (byproducts of making chipped stone tools) and three large manuports—rocks someone carried to the site from another place for a specific purpose. Radiocarbon dates of about 12,000-13,000 years ago were obtained from deposits at and below these artifacts. More conclusive evidence for possible pre-Clovis use of the site must await further excavation.

"RADIOCARBON DATING OF CHARCOAL FOUND NEAR THE POINT INDICATES THAT LATE PALEOINDIAN PEOPLE USED THE BIG EDDY SITE AT LEAST 10,000-10,500 YEARS AGO"

The Corps of Engineers Kansas City district has requested additional funding to answer questions about when Native Americans left their material remains here, as well as who they were and what they were doing. On the border between the plains and eastern woodlands, the Big Eddy site can reveal much about the prehistory of both central and eastern North America, especially about the long elusive earliest Americans.

REPORTING AGENCY: U.S. Army Corps of Engineers
CONTACT POINT: nhl917t@mail.smsu.edu

ABOVE: *One of the stone projectile points found at the Big Eddy site*

A Northwest Tale

FROM AN ALASKAN RIVER, UNEXPECTED TESTIMONY By Karen Iwamoto

It was an unseasonably warm spring morning for Yakutat, Alaska, in April 1997. Our small group, made up of Forest Service archeologists and an ecologist, was leading a field trip for a naturalist class being offered through the University of Alaska. We were here to study the vegetation and geomorphology of the Tongass National Forest and examine archeological sites excavated 10 years earlier. We were walking along the Lost River toward the site of the ancient Native Alaskan village known as Shallow Water Town. We had broken into smaller groups, and were talking about the village and the fields of wild iris. A short way from the site, one of our group looked into the river and noticed the remains of a fish trap. It was apparent that it had only recently eroded into the water, because the staves protruding from the embankment had "fresh" wrappings around them. Made of spruce, they were pliable and moist. Obviously, as supple as they were, they could not have been exposed for very long.

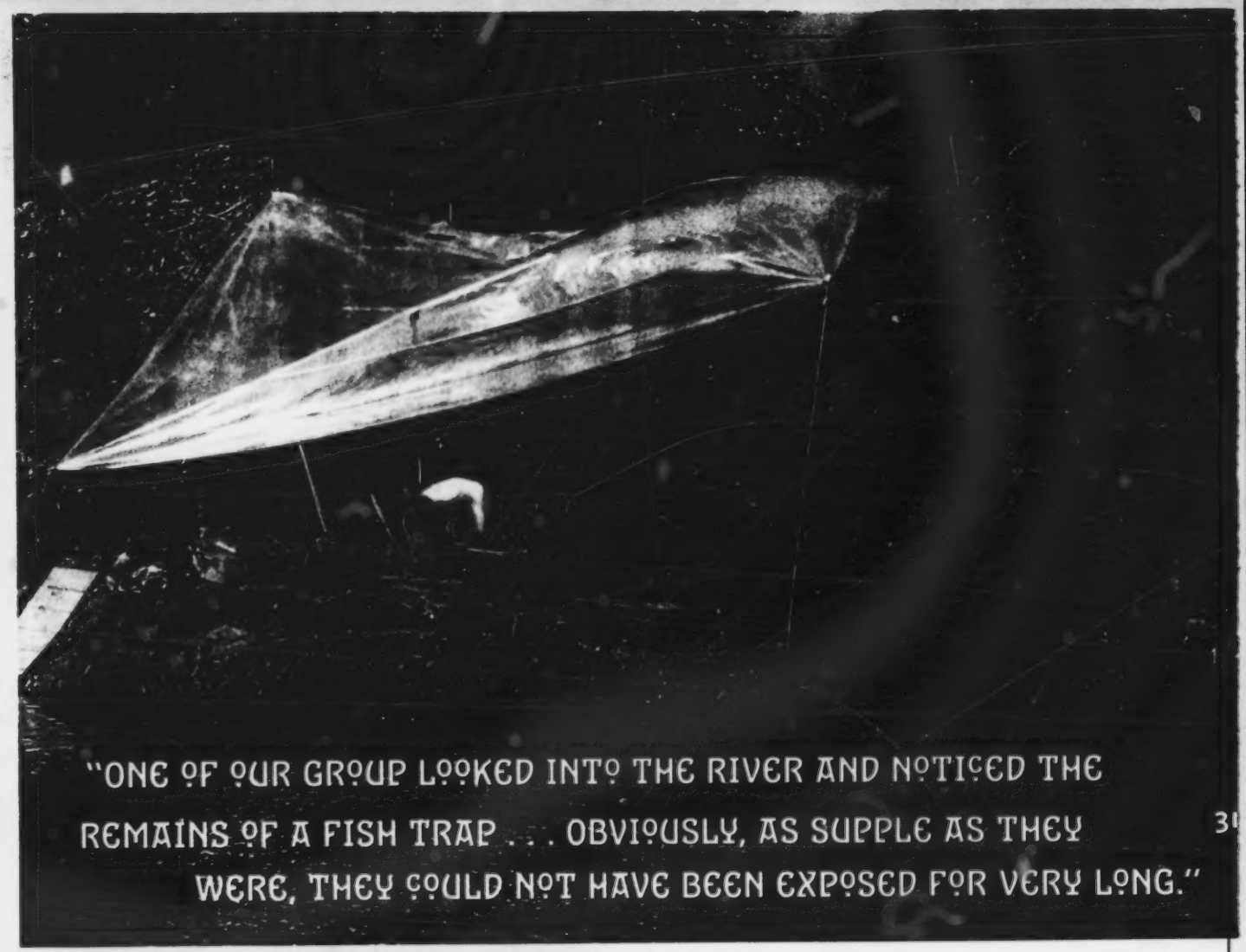
The Forest Service notified the Yakutat Tlingit, whose ancestral lands encompass the forest, and who value what has been left behind as part of their cultural legacy. The trap was radiocarbon dated to AD 1455-1650, about the same time Shallow Water Town was occupied. Working together, the tribe and the Forest Service agreed to remove and conserve the trap—one of only three known in all of southeast Alaska—as an heirloom of native life on the Lost River.

A backhoe was brought in to remove all but the last few inches of soil around the trap, the rest was hand trowelled down. It was apparent that the "hoops," or round parts of the trap, had been wrapped with spruce strips and tied like a handle of a tennis racquet. Though the backhoe excavated a rather large hole (about 7 feet by 9 feet) it was still not big enough to uncover the entire trap, so it is impossible to know how large it is. It was apparent from its rounded corners that it was oval and long. However, since it was crushed flat we could not determine how it actually worked.

Now we faced a decision. The trap was much larger than we were prepared for; preserving it

PHOTOS: U.S. FOREST SERVICE

Above: *An archeologist exposes a fish trap used by Native Alaskans hundreds of years ago.*



"ONE OF OUR GROUP LOOKED INTO THE RIVER AND NOTICED THE REMAINS OF A FISH TRAP . . . OBVIOUSLY, AS SUPPLE AS THEY WERE, THEY COULD NOT HAVE BEEN EXPOSED FOR VERY LONG."

in Yakutat was a poor choice because of the limited resources there. A watertight container could have been built to submerge the trap into polyethylene glycol (a preservative for wooden artifacts), but there was no place available with a large enough door to get the artifact inside.

Once again, we met with the tribe. We agreed to collect what was already in the water, conserve what was in danger of washing away, and rebury the rest. Before reburying, the trap was carefully mapped using different colors for the different layers.

The Forest Service will continue to work with the tribe, providing technical support for conserving the trap. We are now working on grants to complete the project. The Tlingit plan to construct a museum, complete with a laboratory, which could accommodate the rest of the trap for conservation.

REPORTING AGENCY:
U.S. Forest Service

CONTACT POINT:
kiwamoto/r10,chatham@fs.gov.us

LEFT: *The trap's intricate construction, remarkably preserved.*

"ARCHEOLOGISTS DISCOVERED ONE OF THE REASONS THE FURNACE SHUT DOWN: ENVIRONMENTAL DEGRADATION. THICK LAYERS OF SOIL IN THE CROSS-SECTION OF THE PIPELINE TRENCH CONFIRMED THAT EROSION HAD BEEN HEAVY IN THOSE DAYS."

32

BEST COPY AVAILABLE

High Technology, High Ambitions

THE REMAINS OF INDUSTRY FROM THE ANTEBELLUM SOUTH By Van Button

In the mid-19th century, a group of prominent South Carolinians launched a plan to import what was then state-of-the-art iron-making technology. Today, the Susan Iron Furnace, an archeological site on the National Register of Historic Places, is all that remains of one of the world's few surviving examples of early iron production on an industrial scale. Part of the Cherokee Ford Ironworks, the furnace operated from 1835 to about 1850, typifying the charcoal-fired iron smelters that replaced the blacksmith forges of colonial days. In 1996, construction of a pipeline brought the remains under new scrutiny. The Transcontinental Gas Pipeline Corporation was planning a new line near the furnace. Since the project was funded by the Federal Energy Regulatory Commission, compliance with the National Historic Preservation Act was mandatory. This meant that Transco had to make sure that archeologists would precede the backhoes to retrieve historic information from out of harm's way.

Field studies by Transco's archeological consultants, 3D/Environmental, confirmed that the remains of a blast furnace stack were close to the pipeline's path. Transco consulted with FERC and the state preservation officer, agreeing to avoid the furnace and the area around it. Timber matting was used to minimize soil compaction by heavy equipment.

Terry Fergusen, a local archeology professor with an avid interest in the iron works, had already conducted a survey of the site and additional research to nominate it for the National Register. Between Fergusen's work and their own, the archeologists confirmed that the pipeline area contained pig iron production facilities, a canal system (which provided water power for the blast bellows), rail lines, wagon trails, prospect holes for iron ore, and quarries.

Archeologists discovered one of the reasons the furnace shut down: environmental degradation. Thick layers of soil in the cross section of the pipeline trench confirmed that erosion had been heavy in those days. Firing the furnace required felling vast quantities of green wood; once timber had been stripped away to fuel the furnace, soil accumulated at the bottom of the hills. After a dozen years, the toll on the landscape was described by an observer: "For miles on either side of the ironworks, the whole country has been laid waste, presenting as far as the eye can reach, the most desolate and gloomy appearance. The lands having all been bought up by the Company for the sake of fuel." Once the landscape was laid bare, the company was unable to raise enough capital to build a tramway to import wood. The works may have been revived to supply the beleaguered South during the Civil War, but by the 1870s iron making in the Cherokee Ford district was most definitely over.

Over exploiting natural resources was common during our nation's development, particularly in the early southern economy. However, in Cherokee County, the processes that drove out industry ultimately helped preserve an example of the embryonic stage of the Industrial Revolution.

REPORTING AGENCY:
Federal Energy Regulatory Commission

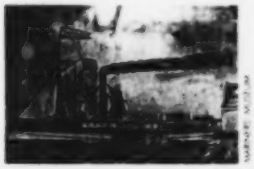
CONTACT POINT:
van.button@ferc.fed.us

LEFT: *The pipeline trench that sparked the investigation of a 19th century ironworks; dark stain in the wall is possible evidence of the operation.* **ABOVE, RIGHT:** *The rubble of a blast furnace, and how it looked in 1854.*

Also Noted

Texas Coast Find

The 19th century paddle steamer *New York*, which sunk off the Texas coast



during a hurricane in 1853, was the focus of an archeological investigation. Sport divers discovered the vessel on submerged land under the jurisdiction of the Minerals Management Service, which regulates underwater mining activity.

Archeologists from MMS and a private firm evaluated the *New York* to determine the best way to preserve its remains.

Deep Discovery in Alabama

The Tennessee Valley Authority continued to excavate Dust Cave, on the bluffs overlooking the Pickwick Basin in northwest Alabama. Occupied as early as 10,500 years ago, the cave contains rare and well preserved archeological deposits that run as deep as 15 feet below the surface. Even in the deepest strata, the remains of bone, fires, and food stuffs are well preserved.

The project has evolved into a partnership that includes the University of Alabama, the Alabama Historical Commission, the National Science Foundation, and the National Geographic Society.

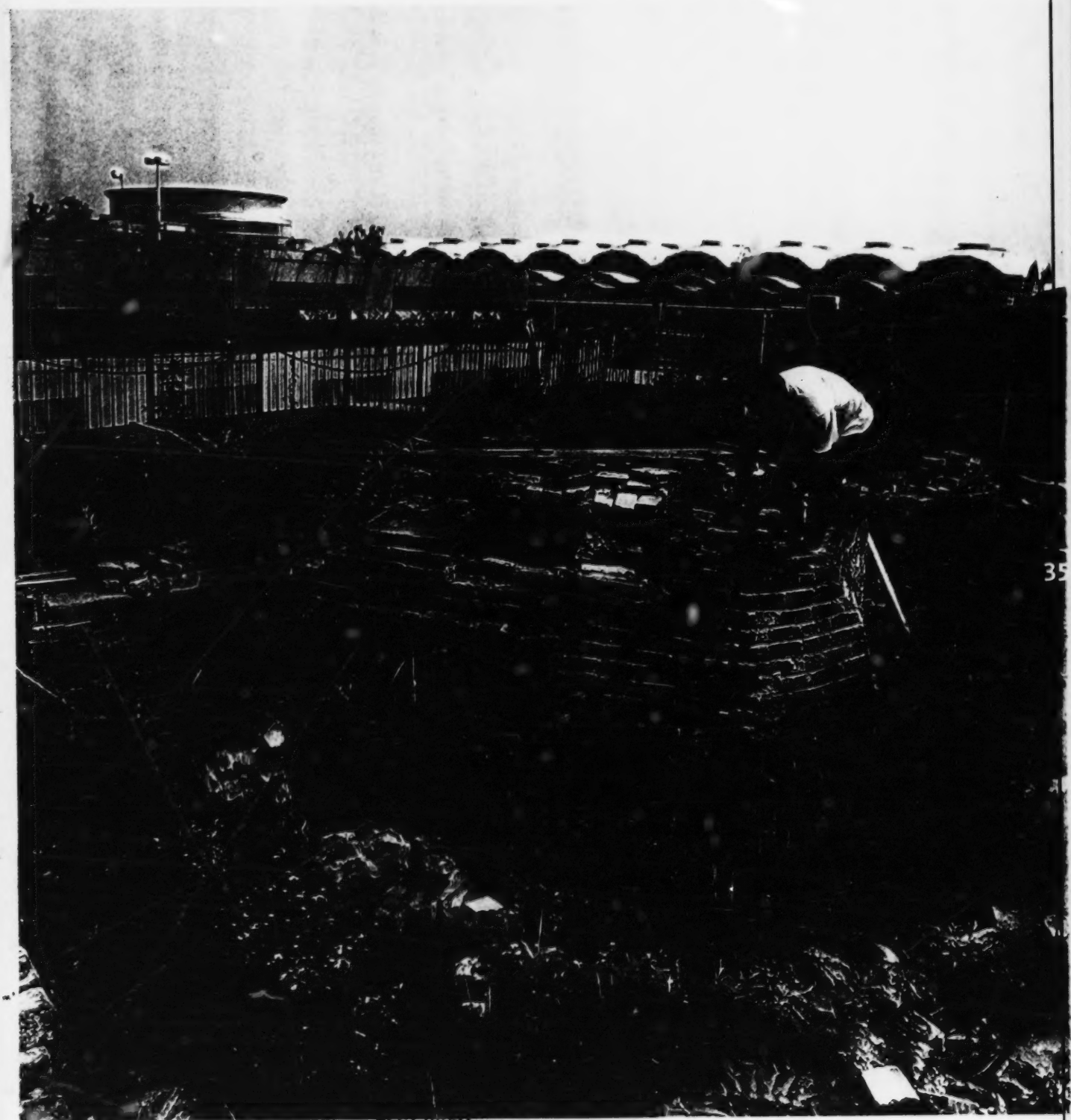
Touching Down on 18th Century Virginia

A team of archeologists and restoration specialists worked to expose, record, and stabilize the original foundation of the 18th century Abingdon plantation in the wake of major renovations to National Airport in Arlington, Virginia. The work was a cooperative effort by the local airport authority, the state, the Advisory Council on Historic Preservation, and the Federal Aviation Administration.

The ruins, located between two parking garages, are what is left of the home of Martha Custis Washington, built in the mid-1700s. Pottery, glass, and other artifacts found at the site will be part of an exhibit at the terminal. The site of the plantation will be included in a new interpretive park.

FARM JOURNAL/BRIG CARR

BEST COPY AVAILABLE



BEST COPY AVAILABLE

LEFT: *The wooden steamer New York, victim of an 1846 hurricane along the Texas coast.* **ABOVE:** *Foundation remains of 18th century plantation house, with airport control tower in the background.*

BEST COPY AVAILABLE

Preventing Looting and Vandalism

OUR ARCHEOLOGICAL HERITAGE IS UNDER CONSTANT threat by those who loot for pleasure and profit. The crime may be metal detecting on a battlefield, defacing rock art, pilfering a shipwreck, looting a burial, or trafficking in artifacts. Year after year, the devastation becomes clearer as more sites are discovered and documented. This report demonstrates the rise in reported violations—there were 1,372 of them in FY 1997—warning us to stay vigilant in the campaign against archeological crime. ■ Systematic monitoring of endangered sites is essential to keep track of their condition and to deter looters. Federal managers are using a variety of technologies to monitor from the air and on the ground. Agencies in Arizona continue to employ citizen "site stewards" to check sites. The Tennessee Valley Authority is implementing an agency-wide protocol to more effectively detect and investigate archeological crimes. Several agencies are committing law enforcement funds—witness the $2 million allocated in FY 1997—however, sustaining programs locally remains a problem. Some field offices report that monitoring is not routine or even considered necessary. Land management agencies, in particular, should strengthen their national and regional strategies. It is difficult to combat increased looting with fluctuating enforcement programs. ■ Arrests and citations climbed after hitting a four-year low in FY 1995. But violations rose at an even faster pace. In FY 1996, 12 percent of violations led to an arrest or citation; in FY 1997, only 9 percent did. ■ Prosecutions, however, nearly doubled between FY 1995 and 1997. Convictions under the Archaeological Resources Protection Act increased dramatically as well, from 41 in FY 1995 to 98 in FY 1997, reflecting greater attention to these crimes by the Department of Justice. Misdemeanor convictions made a spectacular climb, rising over 300 percent since FY 1995. ■ These trends demonstrate the effectiveness of the Archaeological Resources Protection Act. When limited funds and resources hinder criminal prosecution under the statute, agencies are encouraged to use its civil provisions. ■ Training and better reporting are improving enforcement. In FY 1996-97, NPS and the Department of Justice trained 67 attorneys in the criminal and civil procedures of archeological protection law. U.S. Attorneys are sharing information more often, which increases successful prosecutions. Sharing among agencies, however, is hindered by the lack of systematically collected information. The Park Service, Bureau of Land Management, and Forest Service are making progress with sophisticated databases that track case records and provide reliable statistics about violations. ■ All of these training, coordination, and reporting efforts must continue if we are to stem the destruction of our archeological heritage.

LEFT: *Looters of Utah's Polar Mesa Cave, in a photograph used as evidence in a case that had the largest number of defendants and felony convictions (nine) in the history of the Archaeological Resources Protection Act.*

Heritage and the Law

TWO LANDMARK DECISIONS By David Tarler and Joseph Flanagan

In the continuing struggle to protect the nation's archeological legacy from looting and destruction, 1996-97 saw two landmark decisions issued in the Tenth Circuit Court of Appeals. The first pertained to the case of Earl Shumway, who prosecutors described as someone who "has come to symbolize the repeat looter of prehistoric sites." In 1995, a jury found Shumway guilty of looting archeological sites at Canyonlands National Park and Manti-LaSal National Forest (earlier, he pled guilty to illegally excavating rock shelters on Bureau of Land Management property in Utah). Assistant U.S. Attorney Wayne Dance argued that the penalty called for by the U.S. sentencing guidelines was "grossly inadequate" in proportion to the damage. Dance proposed an increase (or "upward departure") in the sentence; the court, he said, should not only consider the archeological value of what Shumway destroyed, but his "extreme conduct" toward human remains he excavated from prehistoric graves. Archeological value is what it would have cost to retrieve scientific information from a site had it not been violated, including preparing a research design, conducting field and lab work, writing reports, and curating collections. Restoration also can be figured in. Shumway's "extreme conduct," Dance argued, should increase what the guidelines call the "base offense level."

The district court for the District of Utah concurred, and Shumway was sentenced to six and a half years in federal prison, the longest sentence ever in an archeological violation case. He appealed his conviction and sentence to the Tenth Circuit, which upheld the lower court's ruling. The rulings in the Shumway case are an expression of how the courts view archeological sites and the objects they contain: as non-renewable resources with a value far beyond what they will fetch commercially on the illicit market.

In the other landmark decision, the Tenth Circuit, reviewing a criminal conviction under the Native American Graves Protection and Repatriation Act, affirmed the act's constitutionality against a charge that it was vague and arbitrary. In 1996, a jury found Richard Corrow, of Scottsdale, Arizona, guilty of trafficking in Native American objects of cultural patrimony. NAGPRA protects these items, which it defines as objects that have "ongoing historical, traditional, or cultural importance."

Corrow purchased several Navajo masks used in a religious ritual and considered

TEXAS HISTORICAL COMMISSION

to be living gods. According to Navajo beliefs, they are tribal property, not meant to leave the reservation. Corrow then attempted to sell them through a Santa Fe dealer in Indian arts and crafts.

The successful prosecution, headed by Paula Burnett, Assistant U.S. Attorney for the district of New Mexico, netted Corrow 5 years' probation and 100 hours

of community service. Attorneys for Corrow appealed the conviction, maintaining that NAGPRA's language, specifically the terms "cultural items" and "cultural patrimony," are unconstitutionally vague. They argued that authorities cannot determine which objects fit these definitions and that they encourage arbitrary and discriminatory enforcement.

The Tenth Circuit upheld the lower court's ruling, finding that NAGPRA gave Corrow fair notice to verify ownership of the masks and that the language of the statute offered authorities ample guidance on what objects are protected. Corrow appealed his conviction to the Supreme Court, which declined to review it, letting the lower courts' ruling stand. Having passed this legal test, NAGPRA has been confirmed as an important means of protecting the nation's native heritage.

REPORTING AGENCY:
National Park Service

CONTACT POINT:
david_tarler@nps.gov

ABOVE: *Archeologist examines a vandalized site in Texas. As the damage illustrates, looters destroy the archeological context as well as steal artifacts.*

A Windfall of Clues

ARTIFACT COLLECTORS OFFER MISSING PIECES TO STORY By Kristin Whisennand

Eighty-seven year-old Wendell Stephens has two five-gallon buckets on the floor in front of him. Both brim with artifacts virtually unknown in the area: one with ground-stone pestles, the other with ground-stone mauls, large, heavy tools used in prehistoric times. On the table are six large cases of beautifully worked flaked tools ranging from tiny arrowheads to large knives. ■ Stephens collected the pieces over the years from within 25 miles of his house. The pestles and mauls would be cached and recovered year after year when the seasonal round brought prehistoric people back to the same spot. Why are these objects rare? First,

LEFT: *Maul heads from the Wendell Stephens collection.* **BELOW:** *Area of prehistoric finds in Lolo National Forest.*

they normally are found in what were large settlements in the fertile floodplains of rivers. Today, most land of this type is in private hands because of its desirability. Forest Service land tends to be desirable for a narrow range of activities, such as timbering. It was the same in the past. Prehistoric peoples conducted their day to day activities in river villages, reserving the forest for specialized activities such as hunting, quarrying, and vision quests. The second reason for the rarity is that the Forest Service does not usually excavate, because most often the goal is to preserve sites in the ground.

After a preliminary inventory of Stephens's collection, it became clear that we had ignored a valuable resource. In order to preserve the legacy in our care, we needed a complete picture of how people used the land in and around the forest.

In the past, the Forest Service restricted the focus to its own lands. This is the equivalent of seeing only the edges of a puzzle. To intelligently manage what we have, we need to know how it relates to the missing pieces. This is where people like Wendell Stephens come in.

Stephens, a farmer, found his artifacts in two places: in his fields and along the river, which flows through the forest. After spring runoff, he would walk the banks, collecting the artifacts that had washed out. Today, however, the banks no longer erode (thanks to flood control dams), which makes Stephens and his collection irreplaceable.

Preservationists rarely acknowledge private collectors, reasoning that they are looters and using their information legitimizes them. But this ignores collectors who are genuinely concerned about these sites. Here on the Lolo, we are working to find people like Stephens to record their wealth of information. Most, like him, are quite elderly, so we encourage them to hand down their collections to the local university, the Confederated Salish and Kootenai Tribes (who trace their ancestry to the very people who used these tools), or the Forest Service, where they can be used for education and research.

REPORTING AGENCY: U.S. Forest Service
CONTACT POINT: kwhisennand/rl_lolo@fs.fed.us

■ "TO INTELLIGENTLY MANAGE WHAT WE HAVE, WE NEED TO KNOW HOW IT RELATES TO THE MISSING PIECES. THIS IS WHERE PEOPLE LIKE WENDELL STEPHENS COME IN." ■

A Relic Resurfaces

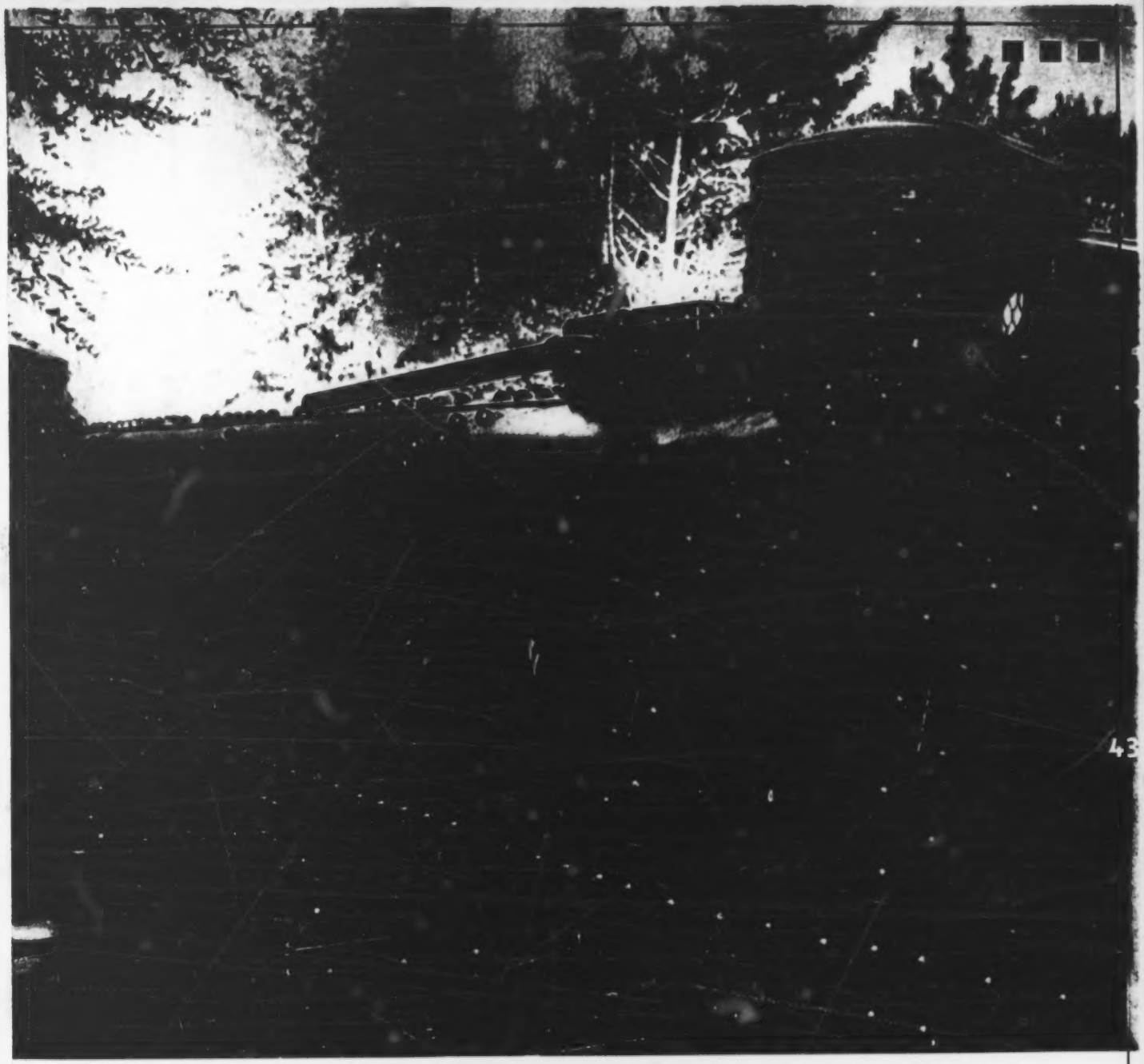
CIVIL WAR SUB BRINGS UNION OF PURPOSE By Joseph Flanagan

In May 1995, the Confederate submarine CSS *Hunley* was discovered 130 years after vanishing in the waters off South Carolina's coast. Divers hired by novelist and amateur archeologist Clive Cussler located the wreck, which is now on the National Register of Historic Places. The *Hunley* went down on February 17, 1864, shortly after sinking the USS *Housatonic*, one of the federal warships blockading Charleston. ■ The discovery of what former National Park Service historian Ed Bearss calls "a vessel of tremendous historical significance to the entire world" had attracted a variety of interests, some of which could compromise its survival. Word went out on the illegal Civil War artifact collectors' network that a hatch cover from the *Hunley* would fetch $50,000, its propeller $100,000. The Coast Guard immediately established a security zone around the site. With its location pinpointed, the vessel was at heightened risk. The wreck site is a mere 20 feet underwater. Cussler withheld the coordinates of the *Hunley*'s location until plans were made to protect the site. ■ After the Civil War, a great deal of Confederate property eventually passed to the General Services Administration. Technically, the Navy manages the wreck for the agency. Initially, South Carolina legislators wanted the federal government to turn the wreck over to the state. The promptly formed Hunley Commission sought private funds to recover the sub, while the South Carolina Institute for Anthropology and Archaeology requested state funds to verify the wreck location and assess its condition with the assistance of treasure salvor F. Lee Spence, who claims to have found the *Hunley* in the 1970s.

PHOTOS: CHARLESTON MUSEUM

In August 1996, a host of state and federal agencies signed a programmatic agreement to protect and conserve the *Hunley*. The Navy, the General Services Administration, the Advisory Council on Historic Preservation, and the state of South Carolina will cooperate to make sure the sub is cared for in accordance with federal preservation laws. Any work done on the wreck will comply with pro-

■ **Above:** *Replica of the Confederate submarine* Hunley *outside the Charleston Museum*



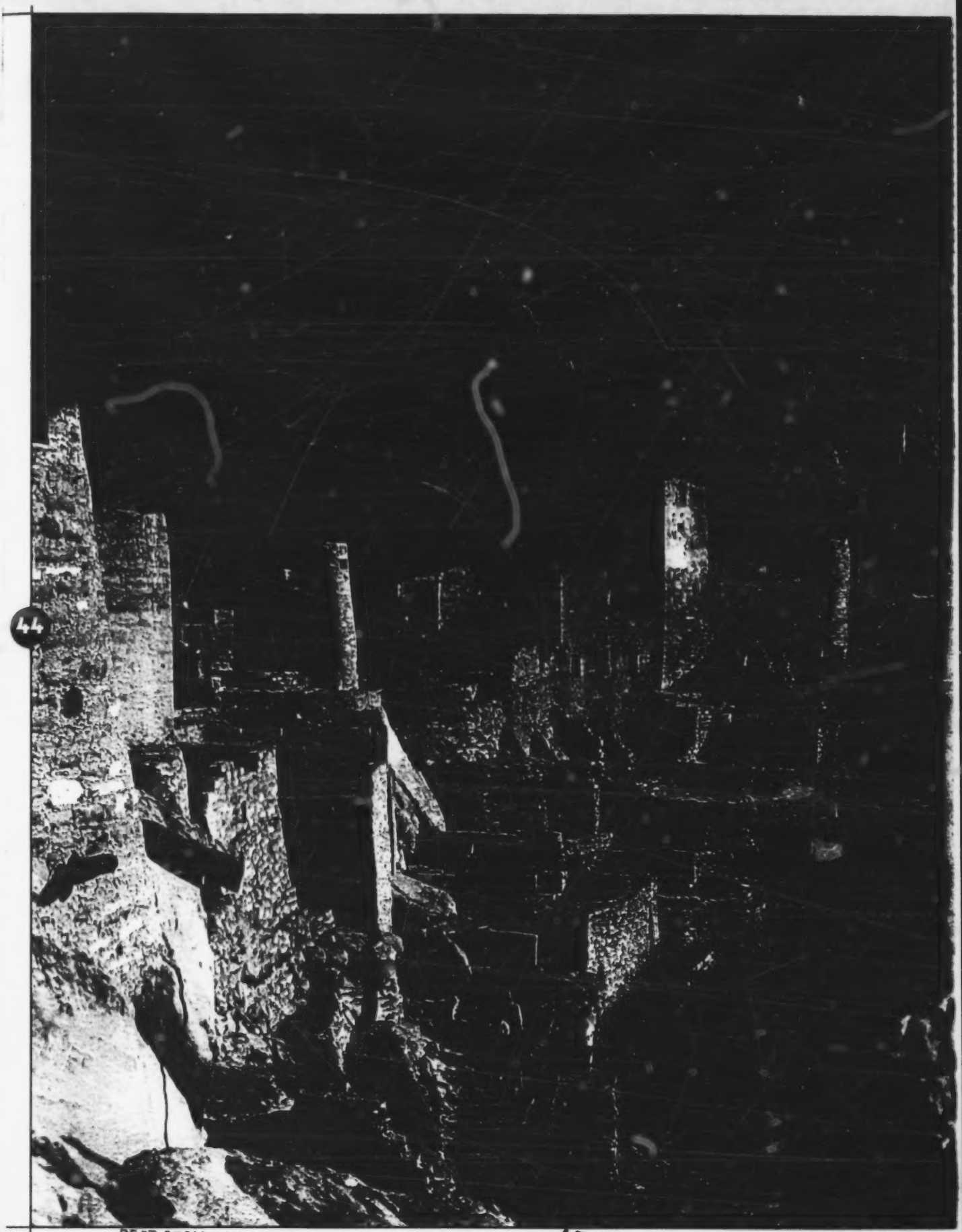
cedures called for in the National Historic Preservation Act. This means that any recovery project will require a permit from the Navy showing competence to carry out a professional archeological project, including retrieval, handling of human remains, and educational and exhibit plans. Also essential: a financial plan to cover retrieval and conservation of the submarine from start to finish.

All parties agreed that administration of the *Hunley* would be passed to the Navy. Naval management provides greater protection, since federal penalties for looting and destruction of government property are stiffer than those called for by South Carolina law (the *Hunley* is reputed to be outside state waters). The Navy can also provide engineering expertise, a recovery ship, trained salvage personnel, and the equipment for a recovery effort. Naval facilities could be used for securing, stabilizing, and conserving the vessel should it be recovered. Also part of the agreement is a plan to display the *Hunley* in South Carolina.

REPORTING AGENCY: U.S. Navy

CONTACT POINT: macneyland@worldnet.att.net

BEST COPY AVAILABLE



BEST COPY AVAILABLE

Reaching Out to the Public

IN 1988 CONGRESS DIRECTED THE DEPARTMENTS MANAGING the largest amounts of land to develop public awareness programs as part of their archeological stewardship responsibilities. As a result, the Departments of Interior, Agriculture, and Defense, along with the Tennessee Valley Authority, stepped up their efforts to interpret the past to the public and promote participation in preservation. Carried out in collaboration with other federal and state agencies and private organizations, these initiatives are evident in the outdoors and classroom alike. The World Wide Web emerged as a new tool for reaching a broad audience; "Ancient Architects of the Mississippi," the inaugural feature of the NPS website, still gets over a thousand visitors a week—three years after its creation. ■ More than ever, communities are learning about their archeological heritage and how to preserve it. Professionally directed volunteer programs can be found in an historic mining camp or in the excavated basement of a colonial home. Volunteers learn as well as gain experience. There are many examples—the Corps of Engineers had volunteers help inventory the Big Blue Civil War Battlefield near Kansas City; high schoolers recorded rock art at Oregon's Malheur National Wildlife Refuge; and volunteers helped conserve sites and museum collections in Virgin Islands National Park. The Forest Service's Passport in Time program demonstrates archeology's growing popularity, expanding from a handful of volunteers in 1989 to over 1,600 in 1997. Since 1989, over 13,000 volunteers participated in 942 projects, contributing 454,000 hours worth $5.2 million. These projects directly advance understanding of the past. ■ The Forest Service and NPS are at the leading edge of heritage tourism on public land. Heritage Expeditions, an experimental Forest Service program, uses fees from site tours to fund preservation; for example, river rafters in effect underwrite the protection of rock art along Idaho's Snake River. NPS does much the same at Florida's Castillo de San Marcos National Monument. Congress authorized this blend of tourism and preservation in 1996. ■ BLM's Project Archeology program continues to serve as a model for states looking to introduce archeology to secondary and elementary schools. Other agencies foster classroom initiatives as well, such as the NPS/National Park Foundation "Parks as Classrooms" program. ■ Most agencies provide staff and funds for state archeology weeks and months; in 1997, 41 states sponsored events reaching over two million. This grassroots effort has created a network of partners supporting local preservation. ■ Since 1988, public awareness has become a valuable part of most agency archeology programs; however, it remains vulnerable to shifting budgets and management. Few agencies target funds for heritage education.

LEFT: *Park Service ranger conducting a tour at Cliff Palace, 1961*

New Beginnings

PARTNERSHIP OPENS DOOR TO OPPORTUNITY · By Susan Marvin

The story of a unique partnership between the Forest Service and Native Alaskans began at an archeological site appropriately named Hchan'iyut, or "Beginnings." Hchan'iyut is on the Kenai River, where abundant sockeye make it one of Alaska's premier salmon runs, attracting tens of thousands of anglers and other visitors annually. It was this popularity that first brought the place to the attention of the staff at the Chugach National Forest, where the site is located. The Forest Service discovered that people were driving and camping directly on the archeological features, and that the constant foot traffic of the anglers was doing damage as well.

The site is representative of pit house villages of the Dena'ina (or Athabaskan Indians) of the Kenai Peninsula, located about 100 miles south of Anchorage. The Kenaitze Dena'ina people moved here about 1,000 years ago, establishing year-round camps along the rivers while constructing pit houses and cache pits, remnants of which can still be seen. The area is within the Sqilantnu Archeological District, which is eligible for the National Register of Historic Places.

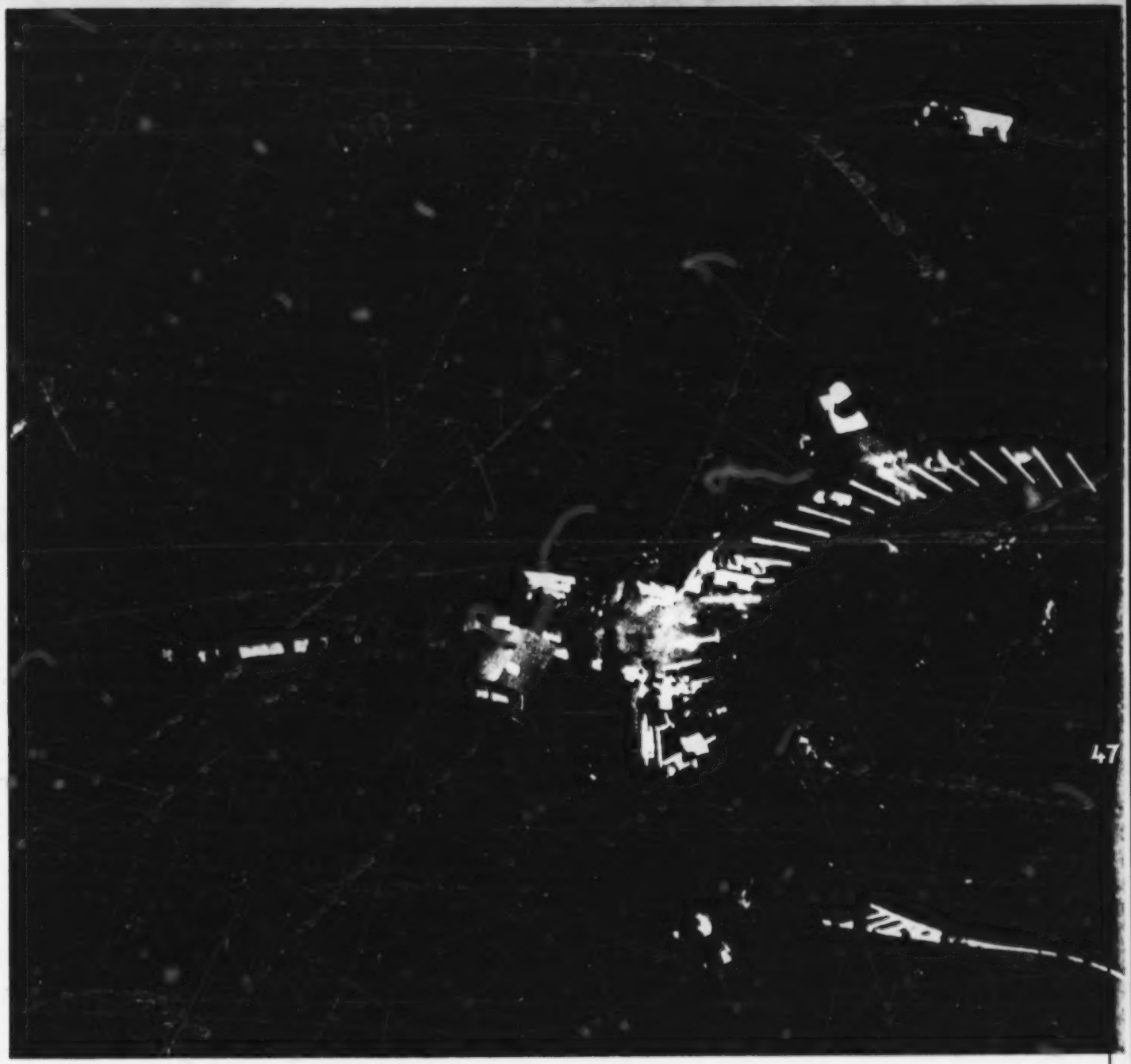
When the damage was discovered, the Forest Service invited the Kenaitze to consult. After the visit, Clare Swan, then tribal chairperson, said, "I felt angry, I was disgusted . . . I felt like I wanted to cry." She said that maybe if people were taught about the Dena'ina culture they would appreciate the resources here. The Kenaitze recommended closing the area, eliminating camping, fires, and boat launching. In return, they would interpret the site to the public. This was an incredible offer from the Kenaitzes, who, in the interest of protecting their cultural sites, had been opposed to identifying them to the public.

So began the relationship between the tribe and the Forest Service. Each shared funds, materials, and labor to construct an interpretive trail, with the Kenaitze staffing the site seven days a week from Memorial to Labor Day; elders, council members, and others from their teens on up joined in.

The program's popularity created a need to offer this interpretation where there was better access and parking. K'Beq, or the "Footprints" pit house site, is on a broad river terrace about a mile upstream, where dense ground cover grows amid the

PHOTOS: CHUGACH NATIONAL FOREST

Left: *Kenaitze dancers celebrate the opening of the Footprints Heritage Interpretive Site* **Above:** *Aerial view of the site*



birch and spruce. Here, the Forest Service built a boardwalk interpretive trail, a parking lot, restrooms, and a small cabin as a field lab, with the Kenaitze once again serving as interpreters. Tribal youth, supervised by archeologists, clean and catalog artifacts, with visitors encouraged to observe.

The site expanded the opportunity to advance the partnership, which is fostering economic growth as well. At an annual camp, teenage tribal members learn the ways of their ancestors, their traditional values, crafts, drumming, and dancing.

The Forest Service hopes to sponsor an excavation of a small portion of the site through its Passport in Time program, using the help of Kenaitze and public volunteers. Other plans are to reconstruct a Dena'ina winter house, reconstruct a working fish trap, and build a greeting area for boaters and anglers to inform them of the sensitive resources.

The future holds great potential. Although much has been learned and accomplished, the Forest Service and the Kenaitze are still at Hchan'iyut: Beginnings.

REPORTING AGENCY: U.S. Forest Service
CONTACT POINT: smarvin/r10@fs.fed.us

Where Two Worlds Met

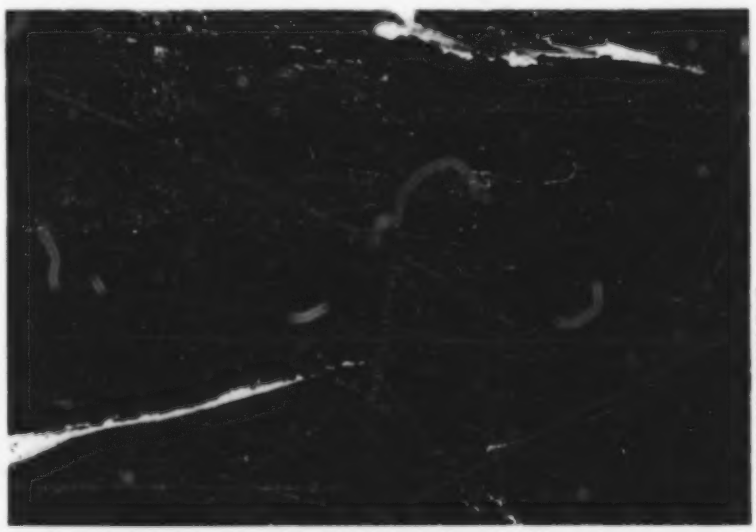
VILLAGE SITE, A WITNESS TO HISTORY By Kenneth Ames, Virginia Parks, and Anan Raymond

"I observed . . . a large village, the front of which occupies nearly 1/4 mile fronting the Chanel, and closely connected, I counted 14 houses . . . Seven canoes of Indians came out from this village to view and trade with us, they appeared orderly and well disposed, they accompanied us a few miles and returned back."

—From the journal of explorer William Clark, November 5th, 1805

Tired and eager to reach the Pacific, Lewis and Clark did not stop to investigate the large riverbank village when they first saw it. But the following spring they returned, taking note of what they saw and trading for provisions as they began their long trip home. They called the village Quathlapahtle, estimating it was home to 900 people, one of the largest Chinookan settlements on the Columbia River. By the time of their visit, people had lived at Cathlapotle (as it is now spelled) for about a thousand years.

■ The settlement was abandoned when epidemics decimated the native people of the Columbia. Today, the once-bustling place is home to abundant wildlife, and, more recently, a motley assortment of archeologists. Located in Washington state's Ridgefield National Wildlife Refuge, Cathlapotle is perhaps one of the best preserved native towns in the Pacific Northwest. Since 1991, it has been the focus of a joint archeological and public outreach project organized by the U.S. Fish & Wildlife Service in partnership with Portland State University and the Chinook.



The Cathlapotle outreach program is extensive, encompassing the Portland-Vancouver metropolitan area, the rural community of Ridgefield, and the present-day Chinook Tribe. Excavations at Cathlapotle have yielded clues to the social structure, technology, and way of life of the former hunter-gatherers

BEST COPY AVAILABLE

Analyzing the information is complex, but the outreach aims to make it all understandable to the public.

Over five summers, visitors watched as field school students uncovered the ruins of seven cedar plankhouses and exposed other areas used by the Chinook. One of the houses is 200 feet by 45 feet; the smallest is 60 by 30. The deeply buried archeological remains contain an extraordinarily rich record; food remains in the form of bones and plant fossils suggest that the Chinook were innovative and industrious, supporting themselves with nearly all the natural resources at their disposal. And the archeological record clearly shows the effects of contact with Europeans. Large numbers of glass beads appear abruptly in the deposits and there is a major influx of iron and copper objects.

An education kit was developed to take the site's story to the schools. "Discover Cathlapotle!" includes samples of raw materials once used by the tribe, artifact replicas made by a contemporary Chinook artist, and a teacher's guide with lesson plans. Each year approximately 1,000 students learn about their community's past through the kit. Beyond the classroom, hundreds of children and adults have attended archeology week open houses featuring lectures, hands-on activities, demonstrations, and exhibits.

Perhaps the most gratifying event, however, was when 90 members of the Chinook visited the excavation on a warm August day in 1995. After an elder sang, one of them observed, "This may be the first time Chinook songs have been sung in this place for 150 years." Today, the site is quiet again as lab work takes up where field work left off. But new opportunities for outreach constantly arise, and Cathlapotle continues to share its past. To check out the latest, point your browser to http://www.r1.fws.gov/crm/crmhome.html.

REPORTING AGENCY:
U.S. Fish & Wildlife Service

CONTACT POINT:
b5ka@odin.cc.pdx.edu

LEFT: *Aerial view of the Native American village Cathlapotle, visible from afar in the time of Lewis and Clark, now overgrown with cottonwoods.* **ABOVE:** *Remains of trade goods discovered at the site.*

Out of This World

VIRGINIA HIGH SCHOOLERS BEAM TV "FIELD TRIP" TO FIVE MILLION STUDENTS By Stephen Potter

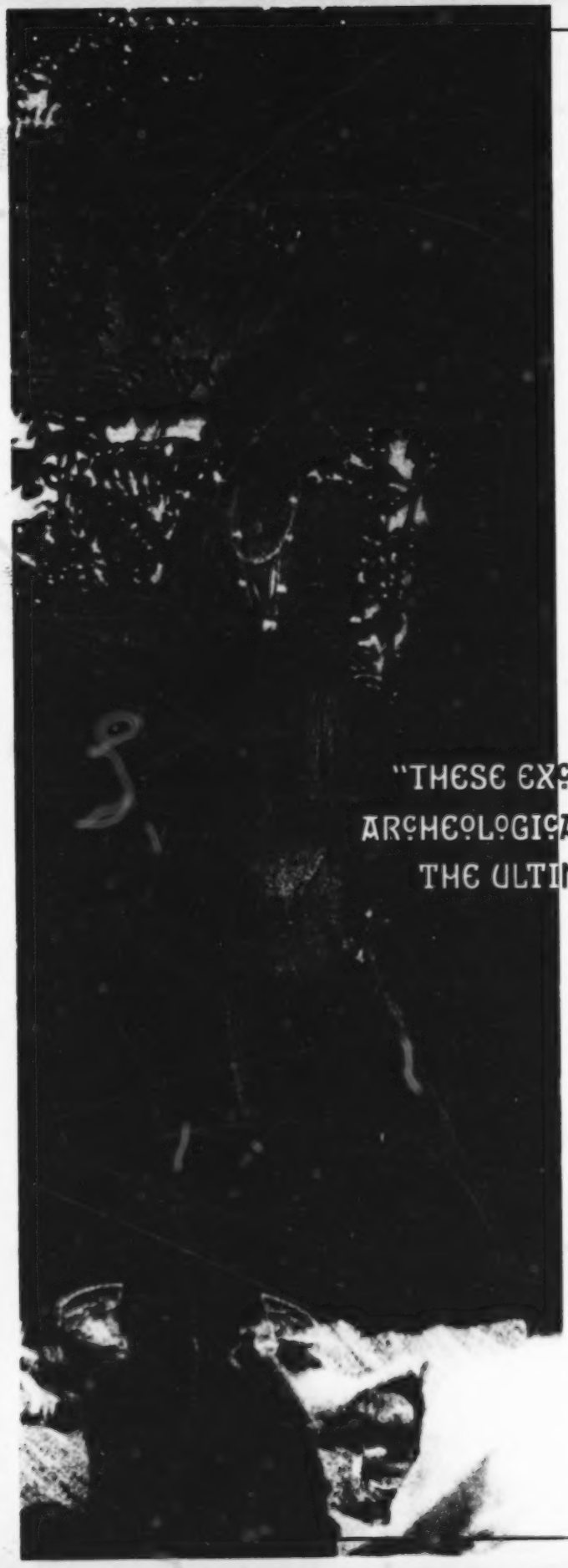
A gentle mist fell over Indian Point as the drum beats and chants of Virginia's Mattaponi tribe opened the live satellite field trip "First People: The Early Indians." Produced by Media Production Services of the Prince William County schools, the trips take students—via the county's satellite network—to places they might never see, where they interact with expert guests.

■ This trip, one of two titled "Archeology in Action," aired from Patawomeke, a Virginia Algonquian village visited by Captain John Smith in 1608. The purpose was to introduce students to the science of archeology by visiting a dig in progress. At Indian Point they learned about the 12,000 years of Indian history in Virginia and listened to the Mattaponi Indians explain their traditions. A series of pre taped mini-field trips was also shown during the broadcast, enabling students to visit other sites important to the state's native heritage.

The show's host, educator Jon Bachman of Prince William County, authored an activity guide for teachers to explore the world of archeology with their students before, during, and after the satellite trip. It contains nine activities, a vocabulary list, references, and other background. Both guide and trip were available at no cost to the schools who registered to take part, thanks to funding by the George Washington and Jefferson National Forests, the Virginia Foundation for the Humanities, and the Association for the Preservation of Virginia Antiquities.

As the regional archeologist for the Park Service—and someone with a long-standing interest in the Algonquian-speaking peoples of Chesapeake Bay—I was one of the expert guests. I provided an overview of Virginia's Powhatan Indians and introduced taped trips to the Thunderbird site, a Paleoindian campsite and quarry (9,500-8,000 B.C.); Daugherty's Cave, an Archaic period site (8,000-1,000 B.C.); Ely Mound, a Mississippian culture temple mound of the Woodland Period (A.D. 1400-1550); and the Salem Ball Field site, a village occupied during the 1600s.

With mobile cameras capturing the live action, Joan Walker of the Thunderbird Research Corporation and E. Randolph Turner of the Virginia department of historic resources supervised students from King George Elementary School excavating part of the Indian Point site. Shirley "Little Dove" Custalow and other Mattaponi Indians made a marvelous live presentation. In the video segments from other sites, Walker and Jeffrey Hantman of the University of Virginia appeared with elementary students, and



Michael Johnson, of the Fairfax County park authority's archeological services, demonstrated stone tool manufacture.

A half hour Q & A capped the show. Students from Maine to Texas, calling toll free, asked Walker, Turner, Custalow, and me to respond to questions running the gamut from "Why do archeologists dig square holes?" to "What classes should I take to become an archeologist?" My favorite was posed by a little boy from King George Elementary School, who wanted to know how archeologists could be so patient when looking for artifacts.

Several months after the program, I learned that 551 registered broadcast sites, representing school divisions with nearly five million students, had tuned in. Not only was the audience impressive, so was the professionalism of the TV production students from C. D. Hylton High School, one of the few in the country that trains young people to produce nationally broadcast television. However, the icing on the cake came when "Archeology in Action" won a national award in 1996. At an annual gathering of teleconference professionals, the program was judged second in the the best distance learning K-12 program category. Not bad for a public school production, particularly when 1st place went to Turner Network Television!

"THESE EXCURSIONS ARE A WAY OF USING ARCHEOLOGICAL SITES ON FEDERAL LANDS AS THE ULTIMATE OUTDOOR CLASSROOMS."

The award demonstrates the importance of public archeologists participating in distance learning, which can reach hundreds of thousands, if not millions, of students. These excursions are a way of using archeological sites on federal lands as the ultimate outdoor classrooms. Toward that end, the people at the network and I are discussing a broadcast from a national park near our Nation's Capital.

REPORTING AGENCY
National Park Service
CONTACT POINT
stephen_potter@nps.gov

FAR LEFT: *At the cameras.* **NEAR LEFT:** *Demonstrating Mattaponi traditions.* **ABOVE RIGHT:** *The live audience takes it in.*

Also Noted

Roots in Depression-Era Illinois

During the hardest years of the 1930s, Camp Pomona was home for young African American men from St. Louis, Chicago, Detroit, and southern Illinois, who built roads, constructed bridges, erected fire towers, and planted trees for the U.S. Civilian Conservation Corps. In FY 1996-97, thanks to a $32,000 grant from the Washington office of the Forest Service, African American college students did historical and archival research to nominate the remains of the camp and associated sites to the National Register of Historic Places. The students worked closely with the archeologist at Illinois' Shawnee National Forest, where what is left of the camp, built in 1933, is located.

The grant was awarded by the FS Historic Black College and University Comprehensive Program, which provides training opportunities for minority students traditionally not involved in science and history.

SHAWNEE NATIONAL FOREST

BLM Education Rolls On

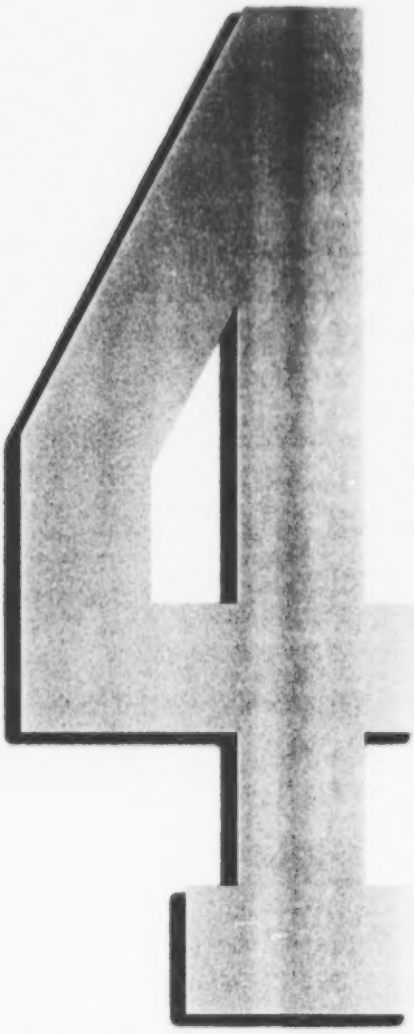
As part of *Intrigue of the Past*, its highly successful archeology and education program, BLM conducted teacher workshops in Alaska, Arizona, Oregon, Utah, and Wyoming. The bureau's Anasazi Heritage Center developed "People in the Past," an interactive CD-ROM about the ancient Puebloan farmers of southwest Colorado. BLM also had a strong presence during the Oregon and Wyoming archeology weeks, hosting a range of education programs for teachers and the public.

Air Force Initiatives Take Flight

Several Air Force bases provided public awareness, interpretation, and education programs for their employees and communities. Elmendorf Air Force Base in Alaska used displays on native lifeways, customs, and archeological sites and artifacts during employee orientation to develop a sense of pride in preserving the history of the base. Wyoming's Warren Air Force Base and Florida's Patrick Air Force Base had museum exhibits on the archeology and prehistory of their respective areas. Eglin Air Force Base, also in Florida, offered archeology and education programs during its annual Eglin Intertribal PowWow Children's Day. Georgia's Robins Air Force Base used travelling exhibits about the Muscogee Creek Nation and archeological research at the base to teach students about using archeology to understand Native American culture. Fairchild Air Force Base in Washington received a state preservation award for producing a lesson plan on the history of the base and surrounding community to be used by elementary schools in the area.

Above: *Students stand next to a tombstone at African American cemetery in Illinois.* **Right:** *A teacher records rock art in a southeastern Utah canyon during one of BLM's* Intrigue of the Past *workshops.*

BEST COPY AVAILABLE



Conserving Collections and Sites

ARCHEOLOGICAL WORK DONE BY FEDERAL AGENCIES HAS yielded a volume of artifacts and records so vast that managing it has become a pressing concern in the national preservation effort. These objects and documents represent a formidable body of knowledge about human history in North America.

■ Agencies reported around 226,000 cubic feet devoted to archeological collections and 74,000 linear feet devoted to associated records, the bulk of it in federal repositories. However, this is only a small part of the picture. Many agencies don't know what they have, where it is, and what condition it's in (the Park Service, an exception, estimates it has almost 30 million archeological objects, with over 90 percent in NPS facilities). With such an incomplete picture, it is difficult to plan for the long term. ■ During the FY 1996-97 period, agencies focused primarily on two issues: completing inventories required by the Native American Graves Protection and Repatriation Act and locating and assessing the condition of their collections. Field offices from 12 agencies and departments submitted inventories as required by NAGPRA. In FY 1996 the Park Service completed summaries and inventories of all Native American human remains and cultural items in its collections and notified the culturally affiliated tribes and Native Hawaiian organizations. The inventory identified the remains of 4,982 individuals and some 10,000 to 15,000 associated funerary objects, distributed among 100 parks. Some agencies, however, have considerable work ahead of them to complete their inventories. ■ Because of the Native American Graves Protection and Repatriation Act, agencies are beginning to identify the non-federal repositories where their collections are located. Currently, few agencies are certain of the number of such facilities. The National Park Service, again an exception, reported 140 of them. The Bureau of Reclamation has also located its collections and, as funding permits, will work with facilities to establish agreements for long-term care. The total number of repositories holding federal collections will not be known until other agencies undertake similar systematic inventories. ■ The Departments of Interior and Defense, for their part, are making significant progress preserving archeological collections and records. The Corps of Engineers' curation center in St. Louis is assisting Department of Defense agencies and others in assessing the condition of their archives and artifacts. ■ Conserving sites is another important issue. As the number of recorded sites grows, so does the challenge of preserving them for study and public enjoyment. In coming years, this report will attempt to systematically measure and describe the strategies used to conserve sites, although the articles here suggest the variety of projects going on across the nation.

■ **LEFT:** *Native American pottery of the Southwest*

Riddle in the Grass

FOREST SERVICE TURNS PUZZLE TO OPPORTUNITY By Douglas Stevens

Late one summer 9,500 years ago, over 600 bison were killed quickly and mysteriously in what is now the Oglala National Grassland in northwest Nebraska. Their bones, and the stone artifacts of prehistoric hunters, were gradually buried under 35 feet of sediment, where they remained until rancher Albert Meng and local mayor Bill Hudson discovered them eroding out of a gully in the 1940s. The pair became the first advocates for investigating and protecting the site that bears their names. This advocacy now includes the Forest Service, several universities and colleges, and hundreds of volunteers, students, and researchers from all over the globe.

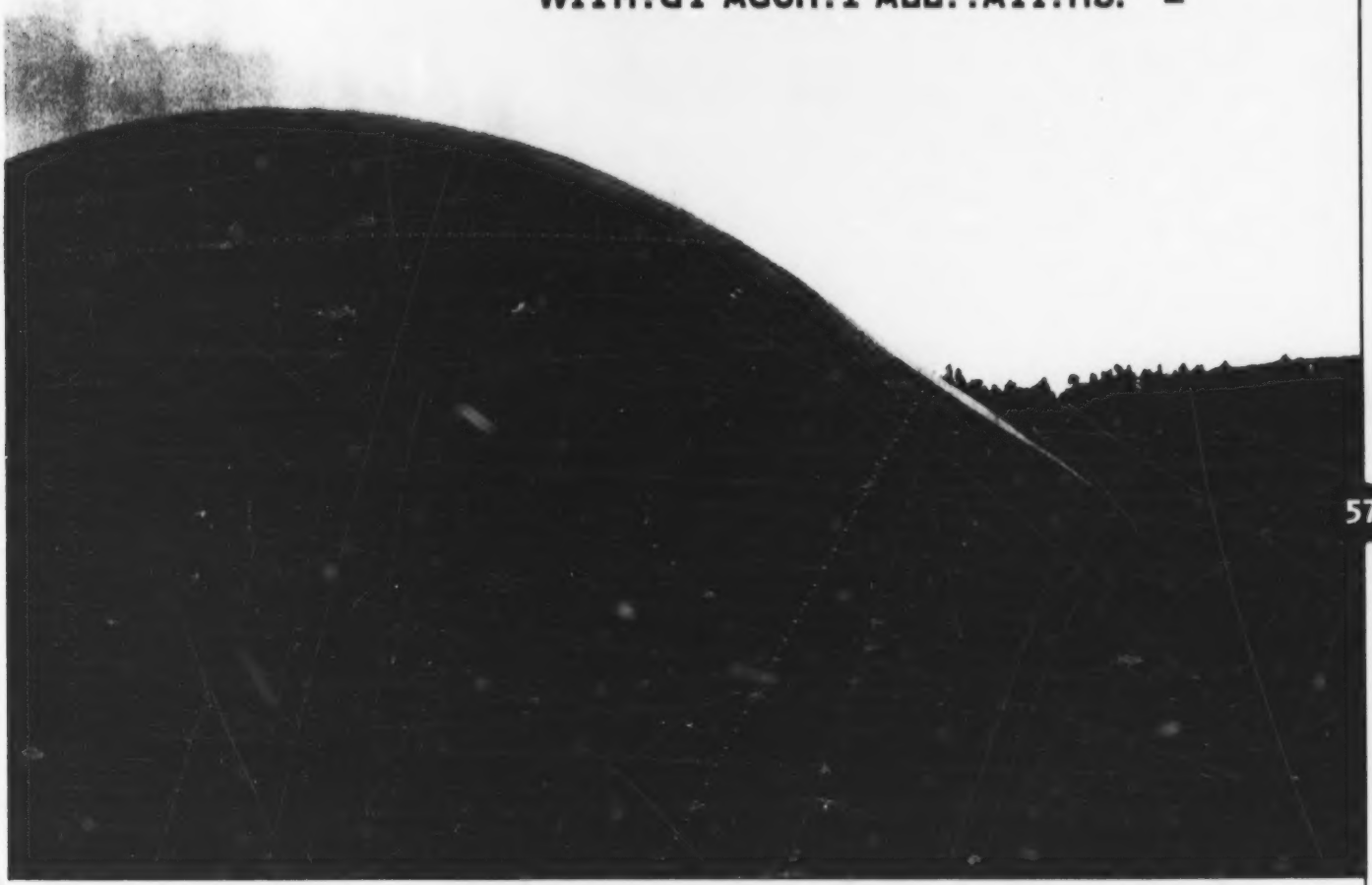
The assortment of bones and artifacts is evidence of the event that formed the bed, but the clues are conflicting, creating intense debate. Did hunters drive the bison off a cliff, or were the animals trapped and suffocated by a prairie fire, or killed by lightning? If people were not involved in the herd's demise then why do we find spear points and other stone implements in the bed?

The answers to these and many other questions are now being pursued within a new, 6,000 square foot building constructed over the site. Completed in 1997, the enclosure covers most of the bed. The Forest Service funded the facility as the centerpiece of a project to provide opportunities for learning about the human and natural history of the northern Great Plains. Inside the enclosure is a classroom, a computer lab, a specimen processing lab, a bookstore, and an excavation area that covers a third of the bed. Exhibits and interpreters explain its story, and visitors can talk to archeologists and students as they work. The experience is very popular; people often stay longer than expected to marvel at the bizarre mat of compacted skeletons from 600 of North America's most powerful creatures.

The bed, and the pristine prairie that surrounds it, is a natural laboratory for understanding the grassland ecosystem and the consequences of 12,000 years of people interacting with it. The unprecedented opportunity it represents brought together many partners with a common commitment. Contributions by Colorado State University, the University of Wyoming, Chadron State College, the University of Nebraska Lincoln, and the Pine Ridge Job Corps totaled nearly $400,000, while over 250 volunteers put in 48,000 hours of labor worth over half a million dollars: locating sites, conducting

PHOTOS: DOUGLAS STEVENS

■ "THE NEBRASKA NATIONAL FOREST AND ITS PARTNERS HAVE DEVELOPED A WAY IN WHICH EDUCATION, RESEARCH, AND PRESERVATION CAN BE ACHIEVED WITHOUT AGENCY ALLOCATIONS." ■



excavations, and giving tours to the thousands who visit each year.

In an era of declining federal funds for heritage programs, such an ambitious endeavor might be precarious at best. However, the Nebraska National Forest and its partners have developed a way in which education, research, and preservation can be achieved without agency allocations. A key component is the Recreation Fee Demonstration Program, approved by Congress in 1996, which allows visitor fees to be used to maintain the site. Without this authority, it would be nearly impossible to provide this experience to the public.

Visitors of all kinds are delighted by the mystery of the past and the natural beauty of the landscape here. But the very presence of the enclosure, and what is going on inside it, is surely a convincing reminder of the importance of preservation.

REPORTING AGENCY:
U.S. Forest Service

CONTACT POINT:
stephens_doug/r2_nebraska@fs.fed.us

ABOVE: *The enclosure built over the site.* **LEFT:** *Inside, the remains of bison killed mysteriously nearly 10,000 years ago.*

Uncovering a Spanish Past

CONSERVATION AND RECOVERY AT THE CASTLES OF SAN JUAN — By Ken S. Wild

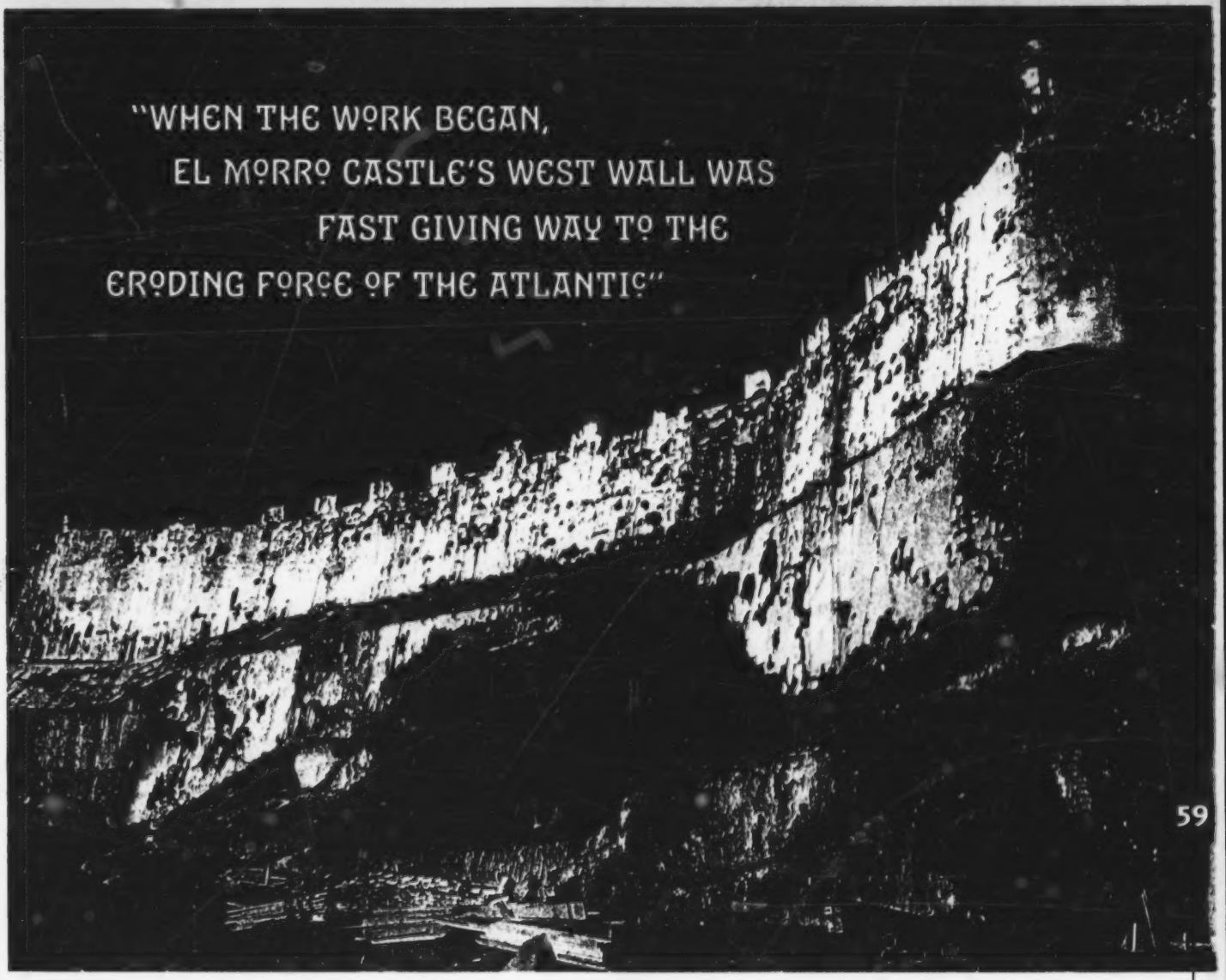
Beginning in the early 1500s and for more than four and a half centuries, the masonry walls of San Juan, Puerto Rico, have evolved into a massive "World Heritage" legacy to what was Spain's New World Empire. San Juan National Historic Site and the Army Corps of Engineers have a long tradition of preserving the nation's largest and oldest colonial fortification. This year marked the end of a multi mil lion dollar conservation effort, which, thanks to the National Park Service, uncovered and preserved a host of historic structures.

When the work began, El Morro Castle's west wall was fast giving way to the eroding force of the Atlantic. The Corps proposed anchoring the base, which meant moving a large mound of dirt to get to the bedrock. In carrying out an archeological assessment, however, the Park Service discovered that the mound was rich with artifacts and food remains discarded over the wall by the fort's original inhabitants. Excavation—contracted to the archeological firm Panamerican Consultants, Inc.—documented the life and particularly the diet of the common soldier here during the late 18th through the mid 19th centuries.

Work then shifted to an imperiled hill next to the fort's moat, which the Corps planned to sandwich between two underground metal walls using tie rods. An archeological assessment proved positive, detecting a bastion from the early 1700s known as San Fernando. The bastion, once unearthed, was more than 300 feet long, with four cannon platforms and associated cast iron mounts. So the Corps decided to sink the rods *under* the bastion. Meanwhile, investigators found features testifying to defensive advances there: the strengthening of the bastion in the mid 1700s, the sealing of firing ports in the 1780s (evidencing the arrival of track mounted cannons, which could swing

ALL PHOTOS NPS

Top: *Preparing the trench for one of two 45 foot deep metal curtain walls intended to sandwich an eroding hill, with bastion remains in the background.* **Bottom:** *Remnants of San Fernando bastion*



and pivot), and—10 years before the American invasion—the return of artillery after its apparent removal earlier. The archeologists also found what was left of an early 18th century road system.

To finish stabilizing El Morro, the Corps had to level a hill next to the moat. In the process archeologists discovered how the moat was built, uncovering dirt ramps used for scaffolding. And removing a U.S. Army period wall revealed remnants of the bastion from the 1500s.

With El Morro stabilized, the Corps turned to San Cristobal Castle. Protruding out into the Atlantic, at the foot of the castle's towering north walls, is the oldest part, the bastion El Espigon. Constructed in 1634, today it is known as the Devil's Sentry Box. The problem was an eroding cliff at the foot of the fortress. Not only was the castle foundation threatened, but chunks of masonry used to stabilize the cliff were poised to rain down on the Sentry Box.

On a hill above the bastion, which the Corps planned to level to accommodate heavy equipment, tests found another mound rich with remains, twice the size of the first. So the Corps shifted the operation to the Sentry Box itself, which meant lifting all the equipment by crane over the walls, with large stones piled up from the beach to act as a ramp. At project's end, the stones were set in the sea around the bastion's base, to buffer the often 20-foot-high waves.

At the Sentry Box, tests showed—intact just below the surface—artifacts from the American invasion, followed by the 19th century, then the 18th, and at a foot down the original bastion floor from the 1600s. To protect this resource, a mound was constructed under the equipment, and carefully removed when work was complete.

REPORTING AGENCY: National Park Service
CONTACT POINT: ken_wild@nps.gov

ABOVE: *Excavating at the base of El Morro Castle*

Artificial Sites

APPALACHIAN RESEARCH BREAKS GROUND By Ben Horter

WEST VIRGINIA DIVISION OF CULTURE AND HISTORY

When the Natural Resources Conservation Service bought a 185-acre farm along West Virginia's Greenbrier River, it turned into an opportunity for archeological research. The land was to be used as a testing ground to evaluate agricultural practices as they relate to the Appalachians' topography, soil, and economic conditions. ■ Much of what the Service does involves archeology; farming, by its very nature, can harm or destroy sites. NRCS was required by preservation law to protect any undiscovered finds at the farm. A survey revealed four prehistoric sites, but they were past saving—themselves disturbed by years of agriculture—and not likely to yield any archeological information. After consulting with the state preservation office, NRCS put forth a plan for the first project at the testing ground: studying the effects of plowing on archeological sites. ■ The research design calls for "seeding," or artificially creating, three separate sites, each 100 feet square. A quantity of different sized, individually numbered aluminum disks will be scattered in each "site" to imitate a lithic scatter (stone artifacts and scrap left over from tool making). The disks will then be plotted in both the horizontal and vertical

planes using a laser transit and a Global Positioning System.

The horizontal recording of the "artifact disks" will be a very important aspect of the research. By mapping both horizontal and vertical planes, the project will create a three dimensional map of site disturbance. The three sites will be subjected to different plowing techniques, twice a year at different depths, to simulate what the region's farmers do in spring and fall. The current plan is to study the site for 5 to 10 years, comparing movement year to year to see if there is a pattern.

To help with field mapping, NRCS plans to recruit students from universities and perhaps high schools as USDA Earth Team volunteers. The students will also enter data into a computer-aided design system to help create and analyze the 3-D maps. As a result, they will gain field experience and possibly even school credits.

REPORTING AGENCY:
Natural Resources Conservation Service
CONTACT POINT:
bhorter@wv.nrcs.usda.gov

Above: *Early West Virginia farming scene; aluminum disks used to simulate artifacts.*

Also Noted

Reclaiming the Past

The state of Utah received an award from the Office of Surface Mining for preserving the Silver Reef historic mining district,

which spans 800 acres. The project was conducted as part of commemorating the 20th anniversary of the Surface Mining Control and Reclamation Act.

Fast Work by Salvage Team

The 1997 floods along the Red River inundated archeological collections at the University of North Dakota in Grand Forks, threatening artifacts from the Tewaukon and Waubay National Wildlife Refuges and the Sullys Hill National Game Preserve. The damage was minimized thanks to the quick work of a rescue team recruited from the Fish and Wildlife Service, the Bureau of Reclamation, the university, and the state's Garrison Conservancy District.

Archeological Excellence

The Natural Resources Conservation Service received an "Excellence in Archeology" award from the Vermont Archeological Society for its work in preserving Skitchewaug, the oldest agricultural site in northern New England.

PHOTOS UTAH DEPARTMENT OF NATURAL RESOURCES

Left and Above: *Old structures and shaft openings in the historic Silver Reef Mining District, Utah*

APPENDIX A — LETTERS OF TRANSMITTAL TO THE U.S. SENATE AND HOUSE OF REPRESENTATIVES

THE SECRETARY OF THE INTERIOR

WASHINGTON

MAR 4 1999

Honorable Frank Murkowski
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

It is my pleasure to provide you with a copy of the *Federal Archeology Program: Secretary of the Interior's Report to Congress, 1996-1997*. This report was prepared to fulfill reporting responsibilities under Section 5(c) of the Archeology and Historic Preservation Act and Sections 10 and 13 of the Archaeological Resources Protection Act. As required, this report discusses Federal archeology activities, achievements and needs.

Now more than ever, the protection, preservation and interpretation of America's archeological resources are important activities of Federal agencies. Archeological remains, whether related to the ancient inhabitants of our country or from more recent historical times, should be reserved for public uses rather than private gain. Information derived from archeological resources should be provided through scientifically based, accessible public interpretation. Many archeological sites are the remnants of the history of Native Americans. Modern American Indians, Native Alaskans and Native Hawaiians are becoming strong partners in the Federal archeology program, as resource managers continue to recognize and encourage participation of related communities in archeological stewardship.

A similar letter is being sent to the Honorable Don Young, Chairman, Committee on Resources, House of Representatives.

Sincerely,

Bruce Babbitt

Enclosure

cc: Honorable Jeff Bingaman
Ranking Minority Member
Committee on Energy and
Natural Resources

THE SECRETARY OF THE INTERIOR

WASHINGTON

MAR 4 1999

Honorable Don Young
Chairman, Committee on Resources
House of Representatives
Washington, DC 20515

Dear Mr. Chairman

It is my pleasure to provide you with a copy of the *Federal Archeology Program: Secretary of the Interior's Report to Congress, 1996-1997*. This report was prepared to fulfill reporting responsibilities under Section 5(c) of the Archeology and Historic Preservation Act and Sections 10 and 13 of the Archaeological Resources Protection Act. As required, this report discusses Federal archeology activities, achievements and needs.

Now more than ever, the protection, preservation and interpretation of America's archeological resources are important activities of Federal agencies. Archeological remains, whether related to the ancient inhabitants of our country or from more recent historical times, should be reserved for public uses rather than private gain. Information derived from archeological resources should be provided through scientifically based, accessible public interpretation. Many archeological sites are the remnants of the history of Native Americans. Modern American Indians, Native Alaskans and Native Hawaiians are becoming strong partners in the Federal archeology program, as resource managers continue to recognize and encourage participation of related communities in archeological stewardship.

A similar letter is being sent to the Honorable Frank Murkowski, Chairman, Committee on Energy and Natural Resources, United States Senate.

Sincerely,

Bruce Babbitt

Enclosure

cc: Honorable George Miller
Ranking Minority Member
Committee on Resources

APPENDIX B — FEDERAL ARCHEOLOGY PROGRAM AUTHORIZATIONS, REGULATIONS, GUIDELINES

STATUTE	REGULATION AND GUIDELINE
ABANDONED SHIPWRECK ACT (43 U.S.C. 2101 et seq.)	Abandoned Shipwreck Act Final Guidelines 55 FR 50116 (1990) 55 FR 51528 (1990) 56 FR 7875 (1991)
AMERICAN INDIAN RELIGIOUS FREEDOM ACT (42 U.S.C. 1996)	
ANTIQUITIES ACT (16 U.S.C. 431-433)	43 CFR 3: Uniform Rules and Regulations Prescribed by the Secretaries of the Interior, Agriculture, and War to Carry Out the Provisions of the "Act for the Preservation of American Antiquities"
ARCHAEOLOGICAL RESOURCES PROTECTION ACT (16 U.S.C. 470aa-470mm)	ARPA Uniform Regulations: 18 CFR 1312 (Tennessee Valley Authority), 32 CFR 229 (Defense), 36 CFR 296 (Agriculture), and 43 CFR 7 (Interior). DOI Supplemental Regulations 43 CFR 7(7) BIA Supplemental Regulations: 25 CFR 262 36 CFR 79: Curation of Federally-Owned and Administered Archeological Collections
ARCHEOLOGICAL AND HISTORIC PRESERVATION ACT (16 U.S.C. 469-469c)	
HISTORIC SITES ACT (16 U.S.C. 461-467)	
NATIONAL HISTORIC PRESERVATION ACT (16 U.S.C. 470)	36 CFR 60: National Register of Historic Places 36 CFR 800: Protection of Historic Properties Secretary of the Interior Standards and Guidelines for Archeology and Historic Preservation. 48 FR 44716 Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act, 53 FR 4727
NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (25 U.S.C. 3001 et seq.)	43 CFR Part 10
RESERVOIR SALVAGE ACT (16 U.S.C. 469)	

BEST COPY AVAILABLE

Acknowledgements

The National Park Service particularly appreciates the effort of all the agency staff members who provided data for this report. Response to the federal archeology program questionnaire, on which this report is largely based, requires considerable time and effort from archeologists, cultural resource professionals, and law enforcement staff, who all help make this report a credible document.

This report was developed under the overall guidance of Francis P. McManamon, DOI Departmental Consulting Archeologist and Program Manager, NPS Archeology and Ethnography Program. Lori Bradley-Augustoni was responsible for entering agency responses into the database. Many program members reviewed and provided helpful suggestions, including Michele Aubry, Veletta Canouts, S. Terry Childs, David Tarler, and Richard Waldbauer. Special thanks are due to those who contributed articles as well as generously shared information about their projects: Kenneth Ames, Portland State University; Tim Burchett, National Park Service; Van Button, Federal Energy Regulatory Commission; Mary Estes, Arizona State Historic Preservation Office; Robert Gal, National Park Service; Sabra Gilbert Young; Lorraine Hartfield, Museum of New Mexico; Sharon Hatch, Forest Service; Debra Hood, Immigration and Naturalization Service; Ben Horter, Natural Resource Conservation Service; Jack Irion, Minerals Management Service; Karen Iwamoto, Forest Service; Jerry Johnson, Air Force; Neal Lopinot, Southwest Missouri State University; Hope Luhman, Lewis Berger Associates; Clayton Marler, Lockheed Martin; Sue Marvin, Forest Service; Mary McCorvie, Forest Service; Mark Mesch, Utah Abandoned Mines Reclamation; Robert Neyland, U.S. Navy; Virginia Parks, Fish and Wildlife Service; Player Pate, Vision Creek Omnimedia; Stephen Potter, National Park Service; Jack H. Ray, Southwest Missouri State University; Anan Raymond, Fish and Wildlife Service; Peggy Shoaf, U.S. Navy; David Skinas, Natural Resources Conservation Service; Debra Smith, U.S. Navy; Signe Snortland, Bureau of Reclamation; Robert Starck, Department of Energy; Douglas Stevens, Forest Service; Gary Stumpf, Bureau of Land Management; Randy Thompson, Shoshone Bannock Tribe; Martitia Tuttle, University of Maryland; Henry Ward, Parsons Management Consultants; Kristin Whisennand, Forest Service; Ken Wild, National Park Service; Diana Yupe, Shoshone Bannock tribe; and Robert Ziegler, Corps of Engineers. Special thanks also go to Tom DuRant, NPS Harpers Ferry Center, for his help with researching photographs.

Managing Editor David Andrews
Designer
Associate Editor Joseph Flanagan

Published April 1999

Cover: *Lloyd Masavumptewa (Hopi), a ruins stabilization crew member, working at Arizona's Wupatki National Monument as part of the National Park Service Vanishing Treasures initiative.* JESSE ROBERTS **Inside Front Cover:** *Bastion at Puerto Rico's El Morro Castle, conserved thanks to the U.S. Army Corps of Engineers and the National Park Service.* NPS **Back Cover:** *Pottery sherd collected in advance of Bureau of Prisons construction project in Houston.* TOLTEC RESEARCH ASSOCIATES, INC.

BEST COPY AVAILABLE

NATIONAL PARK SERVICE
ARCHEOLOGY AND
ETHNOGRAPHY PROGRAM
1849 C STREET, NW (NC 210)
WASHINGTON, DC 20240

BULK RATE
POSTAGE AND FEES PAID
USDI-NPS PERMIT NO. G-83

SUSAN VOELKEL
PROCESSING COORDINATOR
ERIC/CRESS
PO BOX 1348
CHARLESTON WV 25325-1348

221 1

COPY AVAILABLE